

# ATLAS

## STELLARUM VARIABILIIUM.

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SERIES SEXTA,  
EAS SUPPLENS STELLAS VARIABILES,  
QUAE AD SERIES I, II, III. ACCESSERUNT,

COMPOSITA

A

I. G. HAGEN, S. I.,  
SPECULAE VATICANAE DIRECTORE.

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BEROLINI,  
APUD FELICEM L. DAMES,  
MCMVIII.

PIO · X · P · M

QVINQVAGESIMVM · ANNVM

AB · INITO · SACERDOTIO · CELEBRANTI

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# ATLAS STELLARUM VARIABILIIUM.

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## PRAEFATIO.

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Huius Seriei Catalogos Chartasve explicare supervacaneum est, cum ad superiores Series, primam, secundam, tertiam, omnino conveniat. Observationes enim stellarum ad hanc Seriem componendam ab eodem auctore, eodem in loco, eodem instrumento, eadem methodo institutae sunt atque ad Series I, II, III; eodemque modo ab iisdem adiutoribus factae sunt omnes computationes.

Una Catalogi columna accedit, quae quidem in singulis foliis e propriis repetitur stellarum magnitudinibus, prout a D. Pickering ex ultimis suis observationibus derivatae nobisque nuper transmissae sunt. Hae autem magnitudines gradibus nostris, tanquam ordinatae suis abscissis, applicatae lucis curvam determinaverunt, ex qua omnium eius chartae stellarum magnitudines quasi scriptae legerentur. Magnitudines hoc graphico modo obtentas invenies sub titulo HP., ubi litteris crassis illae indicantur, quibus ut suis ordinatis quaeque curva innixa est.

Duo sunt, quare huic Seriei columnam HP. addamus: alterum, ut quae sit relatio inter magnitudines Serierum I, II, III et systema HP. clarius appareat, alterum ut tabulae illae XVII, XVIII, quas D. Pickering in suo volumine XXXVII pp. 189—200 ad convertendos gradus nostros in suum systema photometricum tradidit, ad has chartas extendantur.

Et ita quidem haec Series Sexta supplementi loco est, non solum quatenus eas, quae I<sup>ae</sup>, II<sup>ae</sup>, III<sup>ae</sup> supervenerunt stellas variabiles supplet, sed maxime quidem, quia in luce ponit, quae ratio inter stellarum magnitudines, ab his duobus systematis derivatas, intercedat.

Maxima (vel minima) lux in singulis foliorum titulis indicata elementis nititur, quae aut in III catalogo D. Chandler eiusque revisione, aut in II catalogo D. Pickering inveniuntur, aut a «Commissione Societatis Astronomicae» ad novum catalogum praeparandum colliguntur ac nobiscum a D. Müller communicata sunt.

Reliquum est, ut omnibus qui ad hanc ultimam Seriem et generatim ad totum Atlantem componendum et typis edendum suam operam contulerunt, animum gratissimum significemus.

Quod cum singulas Series vulgaremus optavimus, nunc cum opus ad finem feliciter perductum est, repetimus: faxit Deus, ut iuvet ad aperienda nova huius scientiae arcana, eorumque leges tandem cognoscendas, quo magis possint caeli nobis enarrare gloriam Eius.

E Specula Vaticana,  
Die XIX Septembris, anni iubilaei MCMVIII.

I. G. Hagen, S. I.

## Addenda et Corrigenda.

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### In Catalogis:

276 RR Andromedae, Num. 24,  $\Delta\delta = +19'.8$  pro  $+17'.9$ .

E charta photographica Harvardensi addi possunt duae vicinae:

$$\Delta\alpha = 0^m 0^s, \Delta\delta = +1'.4$$

$$\Delta\alpha = -0^m 3^s, \Delta\delta = -0'.9$$

7492 RZ Cygni, Num. 23 designata BD.  $+47^0 3202a$ ,  $9^M.5$  (AN. 4251).

Post num. 78 adde:  $\Delta\alpha = -0^m 13^s$ ,  $\Delta\delta = +1'.4$ , q, Parkhurst AN. 3579.

$$+0 \quad 5, \quad -0.5, h, \quad ,, \quad ,, \quad ,,$$

$$+0 \quad 2, \quad +0.6, y, \quad ,, \quad ,, \quad ,,$$

### In Chartis:

276 RR Andromedae, Num. 24,  $\Delta\delta = +19'.8$  pro  $+17'.9$ .

7793 SS Cygni, Num. 18,  $\Delta\delta = +11'.1$  pro  $+8'.1$ .

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## X Andromedae

0<sup>h</sup> 8<sup>m</sup> 33<sup>s</sup> (1855.0) +46° 12'.4Max. = 2415 062<sup>d</sup> (11. Febr. 1900) + 342<sup>d</sup> E.

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1			7 <sup>M</sup> .2	7 <sup>M</sup> .4	-4 <sup>m</sup> 1 <sup>s</sup>	+29'.2	PD. 7 <sup>M</sup> .40 WG-	38	74	9 <sup>M</sup> .8		11 <sup>M</sup> .0	-1 <sup>m</sup> 45 <sup>s</sup>	-12'.6	
2			7.5	7.4	+0 42	-23.9	„ 7.34 GW	39	77	9.9	9 <sup>M</sup> .5	11.1	-0 1	+11.9	
3	0	8 <sup>M</sup> .0	8.0	8.1	-2 31	+11.3		40	77	9.9	9.5	11.1	-2 46	-23.9	
4	5	8.1	8.3	8.3	-2 6	- 3.9		41	80	10.0		11.3	-1 8	-12.9	
5	10	8.2	8.5	8.4	+0 35	+16.0		42	82	10.0		11.3	+0 2	+ 7.5	
6	13	8.3	8.8	8.6	-1 2	+14.8		43	83	10.1		11.4	+1 17	+11.7	
7	15	8.4	8.2	8.6	-0 50	- 6.3		44	84	10.1		11.4	-0 53	+ 3.6	
8	21	8.5	8.6	8.9	-1 16	-12.6		45	86	10.1		11.5	+0 52	+ 6.6	
9	24	8.6	8.5	9.0	-0 54	+22.7		46	87	10.2		11.6	+0 32	-15.4	
10	29	8.7	8.8	9.2	-3 0	-12.3		47	88	10.2		11.6	-0 8	+10.2	
11	30	8.7	9.1	9.2	-1 19	-10.2		48	88	10.2		11.6	-1 23	+ 9.3	
12	31	8.8	8.6	9.3	-0 51	-24.0		49	89	10.2		11.7	+0 43	+14.9	
13	38	8.9	8.9	9.6	+0 40	+14.1		50	90	10.2		11.7	+0 36	- 5.4	
14	40	9.0	8.9	9.7	+1 18	+ 3.9		51	91	10.3		11.7	+0 30	+12.7	
15	41	9.0	8.9	9.7	-2 4	+ 5.9		52	92	10.3		11.8	+0 8	- 6.6	
16	43	9.1	9.2	9.8	-0 56	-12.9		53	95	10.4		11.9	+1 17	- 9.9	
17	44	9.1	9.0	9.8	-0 7	-12.6		54	97	10.4		12.0	-1 13	+11.4	
18	44	9.1	9.0	9.8	+2 0	+22.5		55	98	10.4		12.0	-0 17	- 1.8	
19	48	9.2	9.3	10.0	-2 8	-25.9		56	98	10.4		12.0	0 0	- 2.4	
20	49	9.2	9.4	10.0	-1 19	+26.2		57	101	10.5		12.1	+0 48	+ 9.0	
21	51	9.3	9.3	10.1	-1 2	-27.5		58	101	10.5		12.1	+0 36	- 4.2	
22	52	9.3	9.3	10.1	+1 56	+18.0		59	102	10.5	9.5	12.2	-1 27	- 9.6	dpl.*
23	53	9.3	9.0	10.2	-2 32	+15.7		60	103	10.6		12.2	+0 15	+ 6.1	
24	56	9.4	9.4	10.3	-2 11	-21.8		61	103	10.6		12.2	+1 16	-11.7	
25	59	9.5	9.5	10.4	-0 23	+ 6.3		62	105	10.6		12.3	+0 11	+11.9	
26	61	9.5	9.2	10.5	-2 14	-11.7		63	107	10.7		12.4	-1 3	+ 0.7	
27	61	9.5	9.2	10.5	-1 11	+19.2		64	109	10.7		12.5	-1 27	-11.3	
28	61	9.5	9.5	10.5	+0 20	-12.0		65	111	10.8		12.6	+0 27	+ 5.4	
29	62	9.5	9.5	10.5	+1 25	-29.4		66	112	10.8		12.6	-1 10	+ 0.3	
30	64	9.6		10.6	-1 11	+18.3		67	114	10.8		12.7	+0 1	+ 6.1	
31	65	9.6	9.5	10.7	+1 7	- 6.6		68	114	10.8		12.7	-0 22	+ 9.3	
32	67	9.7		10.8	+2 15	-23.9		69	116	10.9		12.7	-0 26	- 3.3	
33	67	9.7	9.4	10.8	-0 35	-28.7		70	117	10.9		12.8	-0 21	+ 9.9	
34	68	9.7	9.5	10.8	+2 54	-17.7		71	117	10.9		12.8	+0 21	+15.0	
35	70	9.7	9.5	10.9	-0 34	+23.8		72	118	10.9		12.8	-0 4	- 0.9	
36	71	9.8		10.9	-1 27	+13.0									
37	74	9.8		11.0	+1 16	-17.1									

\* BD. +46° 30, sic aestimata 5. Febr. et 31. Dec. 1901. A. 4. Dec. 1902 in vanum quacsita a D. Graff (A. N. 169 p. 273).

$$M = 8.9 + 0.025 (G - 36.9).$$

188

## Y Cephei

 $0^h 28^m 18^s$  (1855.0) +  $79^\circ 33'.5$ Max. =  $2\,415\,200^d$  (29 Junii 1900) +  $336^d$  E?

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1			$7^M.0$	$6^M.5$	$-10^m 30^s$	$-18'.6$	PD. $6^M.76$ GW  *	24	59	$11^M.5$		$11^M.9$	$-0^m 5^s$	$-16'.5$	
2			7.7	7.7	+13 30	-30.7		25	61	11.6		$12^M.0$	+1 45	-16.0	
3	0	$8^M.6$	8.5	8.7	- 0 20	-11.5		26	62	11.7		$12^M.1$	-3 0	- 9.4	
4	2	8.7	8.8	8.8	+ 3 20	-12.1		27	64	11.8		$12^M.2$	+2 40	- 6.7	
5	8	9.0	8.9	9.1	-10 15	+ 0.8		28	66	11.9		$12^M.3$	-1 35	+ 4.3	
6	10	9.1	9.2	9.2	-12 55	-15.7		29	69	12.0		$12^M.4$	-5 10	- 4.0	
7	11	9.1	8.9	9.3	+ 3 50	-15.4		30	69	12.0		$12^M.4$	+1 30	- 9.4	
8	17	9.4	9.5	9.6	- 5 55	+10.8		31	69	12.0		$12^M.4$	+2 10	-10.3	
9	19	9.5	9.5	9.7	+ 4 30	-19.3		32	69	12.0		$12^M.4$	+1 55	- 7.9	
10	24	9.8	9.5	9.9	- 4 50	+ 1.5		33	71	12.1		$12^M.5$	+5 25	+ 8.9	
11	28	10.0		$10^M.2$	+ 7 50	-13.3	var.? **	34	72	12.2		$12^M.6$	+2 45	+ 6.5	
12	30	10.1		$10^M.3$	+ 5 25	-16.8		35	72	12.2		$12^M.6$	-4 50	-10.0	
13	33	10.1		$10^M.3$	+ 0 55	-11.5		36	72	12.2		$12^M.6$	+0 35	-10.3	
14	33	10.2		$10^M.5$	- 3 30	+13.7		37	74	12.3		$12^M.7$	0 0	- 1.5	
15	36	10.4		$10^M.6$	- 0 40	+ 5.3		38	75	12.3		$12^M.8$	-1 25	- 5.7	
16	39	10.5		$10^M.8$	+ 6 40	- 4.0		39	79	12.5		$13^M.0$	+0 10	- 6.1	
17	45	10.8		$11^M.1$	+ 3 15	+ 5.9		40	81	12.6		$13^M.1$	+0 30	- 1.1	
18	48	11.0		$11^M.3$	+ 4 40	+12.5		41	81	12.6		$13^M.1$	+2 30	+ 7.4	
19	51	11.1		$11^M.5$	- 1 10	+12.8							-0 55	- 0.5	AC. Gr. ***
20	53	11.2		$11^M.6$	- 1 10	+ 3.9							+0 50	+ 2.0	" " "
21	54	11.3		$11^M.6$	- 3 50	- 9.1							+0 40	- 0.2	" " "
22	56	11.4		$11^M.7$	- 3 25	+ 4.5									
23	57	11.4		$11^M.8$	+ 2 40	+11.9									

\* BD. +  $79^\circ 15'$  colorata, var.? (Hartwig, A.N. 156 p. 369).

\*\* Ex litteris Cl. Pickering.

\*\*\* Desumptae ex Chartis Astrographicis Zonarum +  $79^\circ$  et +  $80^\circ$  Greenwich, quas Cl. Director W. H. M. Christie, antequam in lucem edere benigne ad nos miserat. Jam quae esset inter has stellas vicinas variabilis Y, a diversa magnitudine photographica  $8^M.7$  et  $13^M.0$  ultro apparnit.

$$M = 9.0 + 0.050 (G - 8.8).$$

## V Andromedae

 $0^h 42^m 14^s$  (1855.0)  $+ 34^0 51'.8$ 
 $\text{Max.} = 2413872^d$  (8 Nov. 1896)  $+ 259^d.3$  E.

Num.	Gradius	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradius	Magn.	BD	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1			7 <sup>M</sup> .4	8 <sup>M</sup> .0	-2 <sup>m</sup> 6 <sup>s</sup>	+32'.9	PD. 8 <sup>M</sup> .33 W+	34	70	10 <sup>M</sup> .6		11 <sup>M</sup> .5	-1 <sup>m</sup> 32 <sup>s</sup>	-14'.9	dpl.
2	0	8 <sup>M</sup> .3	8.4	8.5	-0 7	-19.2	P. 8.4 z*	35	73	10.7		11.6	-0 22	- 5.1	„ (11 <sup>M</sup> .5) p
3	3	8.4	8.0	8.7	-1 57	+ 5.7		36	74	10.7		11.7	-0 35	+15.0	
4	8	8.6	8.3	8.9	+0 33	-12.6	„ 9.0 b	37	76	10.8		11.8	+0 31	+14.1	
5	10	8.6	8.5	9.0	-0 11	+26.9		38	77	10.8		11.9	+0 26	- 3.0	„ 11.4 e
6	14	8.8	8.9	9.2	+1 11	+11.7	„ 9.1 A'	39	79	10.9		12.0	-0 31	+ 6.0	„ 11.4 u
7	17	8.9	9.0	9.4	-0 37	-12.6	„ 9.4 y	40	80	10.9		12.0	-0 23	+ 5.4	„ 11.6 t
8	18	8.9	9.0	9.4	+0 58	-11.7		41	81	11.0		12.1	-0 34	- 3.9	„ (12) r
9	19	8.9		9.5	+0 10	+ 9.0	**	42	82	11.0		12.1	-1 27	-12.6	
10	20	9.0	9.5	9.5	-1 2	-26.3		43	82	11.0		12.1	-0 39	+ 9.6	
11	21	9.0	9.2	9.6	+1 8	+ 5.2	„ 9.5 l	44	86	11.1		12.3	+0 15	+ 0.8	„ 12.0 d
12	25	9.1	9.4	9.7	-1 6	+17.4		45	87	11.2		12.4	-0 6	+ 6.7	„ 11.8 s
13	26	9.2	9.1	9.7	+2 21	+23.2		46	87	11.2		12.4	+1 18	+ 9.6	
14	27	9.2		9.8	+0 9	+ 9.1	**	47	89	11.2		12.5	-0 44	+ 6.3	
15	31	9.3	9.1	9.9	+1 11	- 6.1		48	89	11.2		12.5	+1 21	+14.7	
16	34	9.4	9.4	10.0	+1 3	-18.1		49	91	11.3		12.6	-0 24	- 3.6	„ (12) q
17	35	9.5	9.3	10.1	+2 44	-24.5		50	93	11.4		12.7	+0 38	+ 0.6	„ 11.7 o
18	35	9.5	9.1	10.1	+0 18	- 6.0	„ 10.1 a	51	94	11.4		12.8	-0 2	- 2.3	„ 12.1 g
19	36	9.5	9.3	10.1	-2 18	+17.6		52	95	11.4		12.8	-0 30	+ 3.6	„ 11.6 w
20	39	9.6	9.5	10.3	+1 52	-18.3		53	96	11.5		12.9	+1 15	+13.2	
21	46	9.8		10.5	-2 7	+26.6		54	101	11.6		13.2	-0 6	- 2.4	„ 12.5 h
22	53	10.0	9.5	10.8	+2 40	-12.6		55	105	11.8		13.5	-1 3	- 1.1	
23	58	10.2		11.0	+2 36	-15.1							+0 21	- 1.8	„ 12.4 m
24	58	10.2		11.0	-1 49	+17.7							-0 14	- 2.8	„ 12.6 A
25	58	10.2		11.0	+1 15	+10.2							+0 9	+ 2.5	„ 13.2 B
26	59	10.2		11.0	+0 17	-12.3	„ 10.6 f						+0 11	- 0.4	„ 13.6 E
27	59	10.2		11.0	-1 29	+ 6.6							+0 1	+ 1.5	„ 14.0 C
28	60	10.3		11.1	+0 56	- 3.2							+0 11	+ 1.6	„ 14.4 D
29	61	10.3	9.5	11.1	-1 22	+24.2							+1 9	- 7.7	***
30	63	10.4		11.2	+1 4	- 2.4									
31	65	10.4		11.3	+0 55	+ 3.3									
32	68	10.5		11.4	-0 47	+14.7									
33	70	10.6		11.5	+0 44	- 0.2	„ 11.3 n								

\* Parkhurst, Researches in Stell. Photom. 1906. p. 32, Tab. 17 (magnitudines et litterae).

\*\* (9 + 14) = BD + 35° 152, 8<sup>M</sup>.3, HP. = 8<sup>M</sup>.67, Σ 62.

\*\*\* Stella tenuis, visa 5 Octob. 1901, disparuit 6 Octob. 1901.

$$M = 9.0 + 0.033 (G - 21.2).$$

## RR Andromedae

 $0^{\text{h}} 43^{\text{m}} 31^{\text{s}} \quad (1855.0) \quad + 33^{\circ} 35'.2$ 
 $\text{Max.} = 2415833^{\text{d}} \quad (24. \text{Mart. } 1902) + 328^{\text{d}} \text{ E.}$ 

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1	0	6 <sup>M</sup> .4	7 <sup>M</sup> .0	7 <sup>M</sup> .0	+0 <sup>m</sup> 34 <sup>s</sup>	-29'.3	PD. 7 <sup>M</sup> .00 WG	24	77	9 <sup>M</sup> .8	9 <sup>M</sup> .5	10 <sup>M</sup> .5	-1 <sup>m</sup> 26 <sup>s</sup>	+17'.9	
2	15	7.0	7.7	7.4	-1 24	+35.9		25	79	9.9		10.7	+2 14	-17.1	
3	31	7.8	8.0	8.0	+1 56	-27.0		26	79	9.9		10.7	-0 20	-19.2	
4	42	8.2	8.0	8.5	+1 11	+15.6		27	82	10.0	9.5	10.9	-2 11	-29.5	
5	46	8.4	8.5	8.7	+4 8	+10.5		28	82	10.0		10.9	+1 26	- 3.6	
6	48	8.5	9.0	8.9	+0 55	- 5.9		29	86	10.2		11.1	+0 58	+ 7.6	
7	50	8.6	9.0	9.0	+4 14	+10.8		30	88	10.3		11.3	-0 43	- 0.1	10 <sup>M</sup> .4*
8	51	8.7	9.0	9.0	-1 21	+29.1		31	91	10.5		11.5	-0 25	- 5.9	11.2*
9	55	8.8	8.8	9.2	+3 8	+18.3		32	91	10.5		11.5	+1 17	-14.1	
10	56	8.9	8.8	9.3	-0 13	- 6.2		33	94	10.6		11.7	-0 24	-11.9	dpl.
11	59	9.0	9.5	9.4	+1 31	- 9.9	34	97	10.7		11.9	-1 30	+ 0.7	dpl.	
12	61	9.1	8.8	9.6	+2 24	+18.8	35	97	10.7		11.9	+0 12	-11.8		
13	62	9.1	9.0	9.6	-1 9	+31.4	36	100	10.9		12.2	-1 32	- 8.1		
14	64	9.2	9.4	9.7	-0 29	-29.3	37	101	10.9		12.2	+0 48	-11.9		
15	65	9.3	9.0	9.8	-0 41	-26.4	38	102	10.9		12.3	-0 18	+15.0		
16	65	9.3	9.2	9.8	+2 10	-13.5	39	104	11.0		12.4	-1 25	- 6.6		
17	67	9.4	9.3	9.9	+1 20	-17.7	40	104	11.0		12.4	+1 3	- 0.2		
18	68	9.4	9.5	10.0	-1 6	+24.2	41	108	11.2		12.7	+0 35	+ 5.4		
19	69	9.5	9.5	10.0	-1 44	+17.9	42	108	11.2		12.7	+0 8	+ 6.0		
20	70	9.5	9.4	10.1	+0 56	+23.7	43	108	11.2		12.7	-0 46	- 0.3		
21	72	9.6		10.2	-0 33	- 5.1	9 <sup>M</sup> .7*	44	110	11.3		12.9	+0 55	0.0	
22	74	9.7	9.5	10.4	+1 35	+21.9									
23	76	9.8	9.5	10.5	+0 22	+26.7									

\* Anderson AN. 3698.

$$M = 9.0 + 0.045 (G - 58.7).$$

## U Andromedae

 $1^h 7^m 14^s$  (1855.0)  $+39^\circ 57'.0$ Max. = 2 413 529<sup>d</sup> (1. Dec. 1895)  $+352.6^d$  E.

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1	0	7 <sup>M</sup> .5	7 <sup>M</sup> .3	7 <sup>M</sup> .8	-1 <sup>m</sup> 55 <sup>s</sup>	+26'.0	PD. 7 <sup>M</sup> .62 GW	36	103	10 <sup>M</sup> .3		11 <sup>M</sup> .0	-1 <sup>m</sup> 55 <sup>s</sup>	+ 0'.6	
2	2	7.6	7.3	7.9	-3 12	+11.8	„ 7.66 GW-	37	104	10.3		11.1	+0 15	+12.3	
3	5	7.6	7.3	8.0	-2 9	+30.8	„ 7.78 GW+	38	109	10.5		11.2	+1 24	+14.7	
4	22	8.1	7.8	8.5	-3 4	+35.3		39	112	10.5	9 <sup>M</sup> .5	11.3	+0 27	+26.3	
5	24	8.2	8.3	8.6	+0 44	- 3.9		40	112	10.5		11.3	-0 44	+18.9	
6	25	8.2	8.0	8.6	+0 57	+10.0		41	117	10.7		11.5	-1 43	-15.0	
7	29	8.3	8.5	8.7	+2 14	+17.9		42	121	10.8		11.6	-0 52	- 1.8	
8	36	8.5	9.0	9.0	-1 30	-34.1		43	124	10.9		11.7	+0 50	- 9.6	
9	42	8.6	8.5	9.1	-0 44	+18.8		44	125	10.9		11.7	-0 39	+ 8.7	
10	44	8.7	9.0	9.2	+0 59	+11.7		45	127	10.9		11.8	+0 48	-11.1	
11	45	8.7	8.4	9.2	+3 4	-29.9		46	130	11.0		11.8	-0 54	+ 0.3	
12	47	8.8	9.1	9.3	-0 3	+ 6.5		47	130	11.0		11.8	+0 28	+ 3.0	
13	49	8.8	9.1	9.4	+2 6	-25.6		48	131	11.0		11.9	+0 22	-10.9	
14	53	8.9	9.2	9.5	-1 42	+24.0		49	132	11.1		11.9	-0 29	- 9.3	
15	55	9.0	9.0	9.5	+1 12	-15.0		50	133	11.1		12.0	+0 39	-12.1	
16	58	9.1	9.3	9.6	-1 4	-28.7		51	135	11.2		12.0	-0 49	+ 9.4	
17	62	9.2	9.2	9.7	+0 41	+11.5		52	138	11.2		12.1	+0 54	+ 6.6	
18	63	9.2	9.4	9.8	+2 45	+ 3.0		53	139	11.3		12.2	+0 26	+11.9	
19	65	9.3	9.3	9.9	+2 7	+26.2		54	139	11.3	9.5	12.2	+3 4	-17.1	dpl. *
20	70	9.4		10.0	+1 22	+13.5		55	139	11.3		12.2	+1 28	- 6.5	
21	72	9.5	9.5	10.1	+2 28	-15.9		56	143	11.4		12.3	+1 13	- 3.0	
22	72	9.5	9.2	10.1	+0 42	+26.9		57	148	11.5		12.4	-0 2	+ 8.7	
23	76	9.6	9.5	10.2	-2 40	-26.6		58	149	11.5		12.5	-0 17	+11.7	
24	80	9.7	9.5	10.3	-2 39	-20.1		59	150	11.6		12.5	+0 29	+ 4.8	
25	81	9.7	9.5	10.3	-2 18	-17.2		60	151	11.6		12.5	-0 13	+ 8.1	
26	81	9.7		10.3	+2 4	- 6.3		61	152	11.6		12.6	+0 33	+ 6.1	
27	83	9.8	9.5	10.4	+3 24	-17.3		62	156	11.7		12.7	-0 39	+ 9.9	
28	84	9.8		10.4	+1 46	-14.2		63	157	11.7		12.7	-1 16	+12.3	
29	86	9.8		10.5	-2 31	- 3.0		64	161	11.9		12.8	-1 18	+11.4	
30	88	9.9	9.5	10.5	-0 22	-20.9		65	161	11.9		12.8	-0 56	+ 8.7	
31	90	9.9		10.6	-0 24	-11.4		66	169	12.1		13.1	+0 13	-12.0	
32	95	10.1	9.5	10.7	+0 39	+22.1		67	169	12.1		13.1	+0 7	+ 0.5	
33	96	10.1	9.5	10.8	-1 32	- 3.6		68	175	12.2		13.3	-0 16	- 3.6	
34	98	10.2		10.9	-0 34	+14.7									
35	102	10.3	9.5	11.0	-2 17	+ 3.9									

\* Observata Bonnae 1856, 26. et 30. Septemb. (ex litt. D. Deichmüller).

$$M = 8.5 + 0.027 (G - 36.7).$$



## Y Andromedae

 $1^{\text{h}} 31^{\text{m}} 8^{\text{s}} (1855.0) + 38^{\circ} 36'.3$ 
 $\text{Max.} = 2415101^{\text{d}} (22. \text{Mart. } 1900) + 213^{\text{d}} \text{ E?}$ 

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1			5 <sup>M</sup> .4	4 <sup>M</sup> .9	+0 <sup>m</sup> 55 <sup>s</sup>	+74'.1	x Androm. PD. 5 <sup>M</sup> .22 W+ ,, 6.92 WG- ,, 7.32 WG- ,, 7.84 GW- Σ 141	23	59	9 <sup>M</sup> .9	9 <sup>M</sup> .4	10 <sup>M</sup> .4	-2 <sup>m</sup> 8 <sup>s</sup>	-20'.7	**
2			6.7	6.8	+0 26	+80.5		24	61	10.0	9.5	10.5	+1 31	-26.6	
3	0	7 <sup>M</sup> .1	6.9	7.2	+0 40	+14.8		25	61	10.0		10.5	+2 29	-23.0	
4	9	7.5	7.5	7.7	+0 27	-22.4		26	62	10.1		10.6	-0 24	+12.6	
5	10	7.6	8.3	7.7	+2 30	+ 4.2		27	65	10.2	9.5	10.8	-1 19	-23.2	
6	17	7.9	8.3	8.1	+2 12	+ 7.8		28	67	10.3	9.5	10.9	+2 17	+14.2	
7	22	8.1	8.1	8.3	-0 8	-30.4		29	69	10.4		11.0	+0 12	+ 8.3	
8	24	8.2	8.1	8.4	-1 17	+ 0.5		30	69	10.4		11.0	-0 3	+ 6.0	
9	26	8.3	8.6	8.6	+2 35	- 0.9		31	73	10.6		11.3	+0 37	+11.8	
10	31	8.6	8.8	8.8	+0 51	-11.5		32	73	10.6		11.3	-1 39	- 0.3	
11	35	8.8	8.9	9.0	-1 26	+10.8		33	74	10.6		11.4	-0 48	-12.4	9 <sup>M</sup> — < 13 <sup>M</sup>
12	41	9.1	8.9	9.4	-0 19	-19.9		34	79	10.9		11.7	+0 38	-12.0	
13	45	9.2		9.6	+1 31	+ 8.3	*	35	82	11.0		11.9	-0 15	- 9.2	
14	48	9.4	9.4	9.8	-0 32	+ 1.5		36	86	11.2		12.2	+0 5	+12.1	
15	49	9.4	9.2	9.9	-0 30	+ 3.9		37	89	11.4		12.4	+0 33	- 0.8	
16	49	9.4		9.9	+1 31	+ 7.1	*	38	90	11.4		12.5	-0 58	-12.0	
17	51	9.5	9.3	10.0	-0 41	+20.9		39	92	11.5		12.6	-1 2	- 0.3	
18	53	9.6	9.5	10.1	+1 39	+15.0		40	95	11.6		12.9	-0 46	- 0.9	
19	53	9.6	9.2	10.1	-0 40	+ 8.7		41	97	11.7		13.0	+0 9	+ 3.0	
20	56	9.8	9.5	10.2	-0 55	+12.8		42	102	12.0		13.4	-0 9	- 3.6	
								RU			var.		-0 58	-40.6	
21	58	9.9		10.4	+2 29	-23.9	**								
22	59	9.9		10.4	+0 22	+23.9									

\* (13 + 16) = BD. + 38° 321, 9<sup>M</sup>.3

\*\* (21 + 25) = BD. + 38° 325, 9<sup>M</sup>.5

$$M = 8.9 + 0.048 (G - 37.8).$$

## X Cassiopeiae

1<sup>h</sup> 46<sup>m</sup> 42<sup>s</sup> (1855.0) + 58° 32'.6Max. = 2 413 477<sup>d</sup> (10. Octob. 1895) + 384<sup>d</sup> E (Irregularitates magnae).

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1			7 <sup>M</sup> .0	6 <sup>M</sup> .6	+1 <sup>m</sup> 37 <sup>s</sup>	+22'.4	PD. 6 <sup>M</sup> .81 GW	41	67	10 <sup>M</sup> .2		10 <sup>M</sup> .4	+1 <sup>m</sup> 28 <sup>s</sup>	+ 5'.3	
2			7.5	7.1	-0 55	+ 0.8	" 7.29 GW	42	67	10.2		10.4	+0 27	+29.8	*
3	0	8 <sup>M</sup> .0	8.2	8.5	+3 10	- 5.9		43	68	10.3		10.4	+1 27	+12.6	
4	10	8.3	8.6	8.8	+1 49	+ 0.6	colorata	44	71	10.4	9 <sup>M</sup> .5	10.5	+0 34	-28.3	
5	11	8.4	8.1	8.8	- 1 28	+14.9		45	72	10.4		10.6	+1 9	- 3.7	
6	14	8.5	8.6	8.9	+3 34	-32.3		46	72	10.4		10.6	+0 44	+ 2.1	
7	16	8.5	9.1	8.9	-1 43	-20.9		47	74	10.5		10.6	-1 13	-14.5	
8	17	8.6	8.5	9.0	-1 9	+21.6		48	78	10.6		10.8	-0 23	+ 1.2	
9	22	8.7	8.7	9.1	-3 32	- 9.6		49	79	10.6		10.8	-1 24	- 9.0	
10	26	8.9	8.8	9.2	+3 15	+19.8		50	80	10.7		10.9	-0 50	- 6.6	
11	26	8.9	8.8	9.2	+3 51	+24.1		51	82	10.7		11.0	+1 52	-15.0	
12	29	9.0	9.3	9.2	-2 38	+ 3.0		52	84	10.8		11.1	+1 10	-11.9	
13	29	9.0	9.2	9.2	-0 8	- 3.7		53	84	10.8		11.1	-0 57	+ 8.9	
14	31	9.0	9.1	9.3	+1 34	+21.8		54	85	10.8		11.1	-0 20	+ 0.3	
15	32	9.1	9.5	9.3	+0 11	-26.8		55	86	10.9		11.2	+0 7	- 0.2	
16	32	9.1	9.0	9.3	-2 24	- 0.8		56	86	10.9		11.2	0 0	+ 5.8	
17	37	9.2	9.0	9.4	-2 19	-13.4		57	86	10.9		11.2	-0 18	+ 4.4	
18	40	9.3	9.4	9.5	-1 16	-20.0		58	89	11.0		11.3	+1 26	- 8.4	
19	42	9.4	9.4	9.6	-1 42	+ 6.3		59	90	11.0		11.3	-1 48	- 5.2	
20	43	9.4	9.5	9.6	+1 0	- 5.5		60	90	11.0		11.3	-0 43	+ 6.3	
21	44	9.5		9.6	+0 30	+29.6	*	61	91	11.0		11.4	+0 28	+ 5.3	
22	44	9.5	9.1	9.6	+3 15	+28.0	dpl.	62	93	11.1		11.5	-1 19	+ 7.2	
23	45	9.5	9.5	9.7	- 1 36	-16.0		63	93	11.1		11.5	+1 30	-12.3	
24	46	9.5	9.3	9.7	+1 15	- 7.9		64	93	11.1		11.5	+0 48	0.0	
25	46	9.5		9.7	+0 20	+13.5		65	95	11.1		11.6	-1 54	+11.4	
26	48	9.6	9.5	9.8	-2 38	+17.8		66	96	11.2		11.6	-1 36	+ 0.3	
27	49	9.6	9.5	9.8	+2 25	-18.8		67	97	11.2		11.7	-1 59	+ 7.6	
28	50	9.7	9.3	9.8	-0 9	-15.3		68	98	11.2		11.7	-1 33	- 2.1	
29	51	9.7	9.4	9.9	-1 21	-20.3		69	99	11.3		11.8	+0 16	-14.8	
30	53	9.8	9.5	9.9	+3 48	- 6.8		70	100	11.3		11.8	-1 28	+ 0.6	
31	55	9.8	9.5	10.0	- 2 11	- 9.2		71	101	11.3		11.9	- 2 2	-10.5	
32	56	9.9	9.5	10.0	+1 6	-18.2		72	101	11.3		11.9	+1 45	-12.6	
33	56	9.9	9.4	10.0	-3 43	+18.7		73	101	11.3		11.9	-0 59	- 7.8	
34	58	9.9	9.5	10.1	+2 45	+ 2.1	colorata	74	104	11.4		12.0	+1 45	+11.2	
35	59	10.0	9.5	10.1	+3 36	-29.0		75	108	11.6		12.2	+0 4	- 5.3	
36	59	10.0	9.5	10.1	-0 14	- 8.6		76	110	11.6		12.3	+1 37	- 5.7	
37	59	10.0		10.1	-1 54	-18.0		77	111	11.7		12.4	-1 54	+ 7.2	
38	61	10.0		10.2	-0 12	+ 0.7		78	114	11.8		12.5	+0 6	+ 2.9	
39	65	10.2	9.5	10.3	-1 14	+ 9.8		79	117	11.9		12.6	0 0	- 5.0	
40	67	10.2		10.4	-1 36	+ 6.0		80	118	11.9		12.7	+0 13	+ 2.7	

\* (21 + 42) = BD. + 59° 36', 9<sup>M</sup>.1

M = 8.8 + 0.033 (G - 23.8).

# W Andromedae

$2^h 8^m 25^s$  (1855.0)  $+43^\circ 37'.8$

Max. = 2 415 001<sup>d</sup> (12. Dec. 1899)  $+ 397.4^d$  E.

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1			5 <sup>M</sup> .2	5 <sup>M</sup> .1	-4 <sup>m</sup> 17 <sup>s</sup>	-4'.9	b Androm. PD. 4 <sup>M</sup> .95 RG-	33	50	10 <sup>M</sup> .8		11 <sup>M</sup> .2	+0 <sup>m</sup> 5 <sup>s</sup>	-8'.9	
2			7.7	7.7	-0 45	-31.9		34	50	10.8		11.2	-0 31	-3.5	P. — k
3	0	8 <sup>M</sup> .9	8.9	9.1	-1 7	+7.8	P. 9.4 a*	35	54	11.0		11.4	-1 31	-3.8	
4	2	9.0	9.0	9.2	+0 34	+16.6	„ 9.1 o	36	55	11.0		11.4	+0 41	-12.5	
5	(6)	var.?	9.5	9.4	+0 11	+0.1	„ 9-9 <sup>1</sup> / <sub>2</sub> c**	37	56	11.0		11.4	+0 17	-3.0	„ 11 <sup>M</sup> .3 g
6	7	9.2	9.5	9.5	-0 5	+3.4	„ 9.7 b	38	56	11.0		11.4	-0 39	-7.0	
7	10	9.3	9.3	9.6	+1 26	-0.5		39	59	11.1		11.5	+1 21	-3.1	
8	13	9.4	9.4	9.7	-1 51	+17.3		40	62	11.3		11.7	+0 17	-6.0	
9	14	9.4	9.5	9.8	+1 34	-15.8		41	63	11.3		11.7	-0 39	-14.9	
10	15	9.5	9.5	9.8	-2 44	+9.7		42	63	11.3		11.7	-0 12	-11.0	
11	18	9.6	9.5	9.9	-0 45	-11.6		43	63	11.3		11.7	+0 58	+11.3	
12	22	9.7	9.5	10.1	+0 47	+26.7		44	64	11.3		11.8	+0 41	-5.2	
13	23	9.8		10.1	-2 33	-23.6		45	65	11.4		11.8	+0 48	-0.1	
14	26	9.9	9.5	10.3	+1 29	-18.1		46	67	11.5		11.8	-0 32	+2.6	„ 11.4 m
15	27	9.9	9.5	10.3	-2 35	-21.4		47	67	11.5		11.8	-0 31	-3.5	
16	27	9.9	9.5	10.3	+1 21	+21.9		48	68	11.5		11.9	-0 32	+14.2	
17	29	10.0		10.4	-1 56	+17.8		49	70	11.6		12.0	-0 39	-2.3	„ 11.3 n
18	29	10.0		10.4	+1 6	+6.3		50	73	11.7		12.1	+0 57	+2.2	
19	31	10.1		10.5	+0 37	-0.5	„ 10.3 f	51	74	11.7		12.1	+1 19	+7.3	
20	31	10.1		10.5	-0 12	-11.6		52	74	11.7		12.1	0 0	+7.0	
21	32	10.1		10.5	+0 42	+6.4		53	77	11.8		12.3	+0 12	+6.7	
22	33	10.2		10.6	+1 24	-21.6		54	81	12.0		12.4	-0 17	-3.5	„ 12.0 h
23	34	10.2		10.6	-1 11	-3.9		55	94	12.5		12.9	-0 1	-2.6	„ 12.6 u
24	35	10.2	9.5	10.7	+1 32	-4.9							-0 7	-0.5	„ 13.2 w
25	41	10.5	9.5	10.9	+1 22	-7.5							+0 6	-1.4	„ 13.5 z
26	43	10.5		10.9	-0 57	-12.7							-0 6	-1.3	„ 13.8 $\alpha$
27	43	10.5		10.9	-0 3	-6.8							-0 11	-0.7	„ 13.8 y
28	44	10.6		11.0	-1 9	+9.0							-0 6	+0.4	„ 14.4 $\beta$
29	45	10.6		11.0	-1 16	+2.2							-0 3	+0.2	„ 14.8 $\gamma$
30	45	10.6		11.0	-0 30	+16.8									
31	47	10.7		11.1	-0 5	+9.1									
32	48	10.7		11.1	-0 36	0.0	„ 10.8 d								

\* Parkhurst, Researches in Stell. Photom. 1906 p. 47, Tab. 26 (magnitudines et litterae).

\*\* BD.  $+ 43^\circ 46'$ ; vide AN. 3917.

$$M = 9.2 + 0.038 (G - 7.7).$$

1166

## X Ceti

 $3^{\text{h}} 12^{\text{m}} 4^{\text{s}}$  (1855.0)  $-1^{\circ} 35'.7$ Max. = 2 411 401<sup>d</sup> (2. Febr. 1890) + 182<sup>d</sup> E.

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1			6 <sup>M</sup> .2	5 <sup>M</sup> .6	-1 <sup>m</sup> 6 <sup>s</sup>	+ 8'.3		16	85	11 <sup>M</sup> .0		11 <sup>M</sup> .6	-0 <sup>m</sup> 27 <sup>s</sup>	- 9'.3	
2	0	8 <sup>M</sup> .0	7.7	7.9	+0 38	-31.9		17	87	11.1		11.7	+0 39	+18.6	
3	13	8.5	8.6	8.4	+1 44	+32.3		18	89	11.1		11.8	+0 33	-17.0	
4	25	8.9	8.8	8.9	-0 53	-33.2		19	91	11.2		11.9	-0 24	+15.5	
5	28	9.0	9.1	9.1	+0 45	-28.6		20	92	11.2		12.0	+0 36	-14.2	
6	33	9.2	9.2	9.3	+0 40	-29.3		21	96	11.4		12.2	-0 51	+17.2	
7	36	9.3	9.3	9.4	-0 42	-13.7		22	98	11.4		12.3	-0 9	+ 1.2	
8	36	9.3	9.3	9.4	-0 34	+ 2.7		23	98	11.4		12.3	-0 38	-12.5	
9	42	9.5	9.5	9.6	-0 47	-11.4		24	100	11.5		12.4	+0 8	+11.4	
10	46	9.6	9.5	9.8	+0 56	+10.5		25	105	11.7		12.6	+0 30	+ 5.1	
11	46	9.6	9.5	9.8	-0 21	+ 6.2		26	106	11.7		12.7	+0 43	-21.5	
12	54	9.9	9.5	10.2	-1 5	-29.1		27	110	11.9		12.8	+0 15	+11.8	
13	72	10.5		11.0	-0 36	-12.6		28	116	12.1		13.1	+0 7	- 9.9	
14	75	10.6		11.2	+0 42	- 9.6									
15	82	10.9		11.5	+0 26	+10.6									

$$M = 9.0 + 0.035 (G - 28.3).$$

## T Leporis

 $4^{\text{h}} 58^{\text{m}} 41^{\text{s}}$  (1855.0)  $-22^{\circ} 6'.4$ 
 $\text{Max.} = 2415343^{\text{d}}$  (19. Novemb. 1900)  $+ 366^{\text{d}}.5 \text{ E.}$ 

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1			$3^{\text{M}}.7$	$3^{\text{M}}.3$	$+0^{\text{M}}38^{\text{s}}$	$-27'.9$	CoD. $3^{\text{M}}.1$	28	115	$10^{\text{M}}.0$	$10^{\text{M}}$	$11^{\text{M}}.3$	$+1^{\text{M}}38^{\text{s}}$	$-3'.5$	CoD. $10^{\text{M}}$
2	0	$8^{\text{M}}.0$	7.5	7.4	-0 10	+40.6		29	118	10.0	9.8	11.4	+1 0	+9.2	
3	9	8.1	7.7	7.7	+0 26	+38.4		30	119	10.0	9.5	11.4	-0 1	+3.0	„ 9.7
4	23	8.4	8.6	8.2	+0 43	+29.3		31	123	10.1	9.9	11.5	-0 21	+19.4	*
5	53	8.9	9.0	9.3	-2 9	+29.0		32	125	10.1		11.6	+1 30	-9.0	„ 9.7
6	60	9.0	9.2	9.5	-1 20	+21.2	*	33	128	10.2		11.7	-0 59	-6.3	„ 9.8
7	61	9.0	9.1	9.5	-1 20	+26.9		34	133	10.3		11.8	+1 6	+12.3	
8	62	9.1	9.1	9.6	-1 29	-26.4	„ 9.1	35	137	10.3		11.9	+0 57	+6.3	
9	68	9.2	9.2	9.8	+1 16	-16.5	„ 9.3	36	140	10.4		12.0	+0 26	+11.1	
10	72	9.2	9.0	9.9	+0 11	-21.0	„ 9.2	37	141	10.4		12.1	+0 13	-5.2	„ 10
11	73	9.2	9.4	10.0	+1 6	-12.0	„ 9.4	38	147	10.5		12.2	-0 6	+8.2	
12	75	9.3	9.2	10.0	-1 43	-10.8	„ 9.3	39	147	10.5		12.2	-0 52	+6.7	
13	78	9.3	9.3	10.1	-0 45	-18.6	„ 9.3	40	150	10.5		12.3	+0 13	+2.2	„ 10
14	81	9.4	9.4	10.2	-1 34	-13.4	„ 9.6	41	152	10.6		12.4	-0 20	-12.7	„ 10
15	84	9.4	9.3	10.3	+1 6	-15.0	„ 9.5	42	153	10.6		12.4	+0 24	+9.6	
16	84	9.4	9.1	10.3	+0 40	+6.9		43	154	10.6		12.5	-0 54	-2.1	
17	88	9.5	9.6	10.4	+0 46	-0.2	„ 9.5	44	156	10.7		12.5	-0 45	+6.7	
18	91	9.5	9.7	10.6	-0 49	-2.6	„ 9.5	45	159	10.7		12.6	+0 4	+13.0	
19	95	9.6	9.5	10.7	-1 16	-12.0	„ 9.4	46	159	10.7		12.6	-0 55	+6.9	
20	97	9.6	9.5	10.7	-0 35	+17.1		47	162	10.8		12.7	-0 21	+5.8	
21	100	9.7	9.9	10.8	+1 36	-5.5	„ 9.8	48	164	10.8		12.8	+0 55	0.0	
22	100	9.7	9.5	10.8	-1 46	-2.4	„ 9.6	49	168	10.9		12.9	+0 51	-5.7	
23	103	9.7	9.7	10.9	-1 49	+18.0		50	170	10.9		13.0	+0 16	-6.6	
24	104	9.8	9.5	10.9	-0 12	+14.4		51	174	11.0		13.1	-0 21	-0.6	
25	106	9.8	9.5	11.0	+0 12	+11.5		52	175	11.0		13.1	+0 26	-0.2	
26	111	9.9		11.2	-0 27	+1.5	„ 9.5								
27	114	9.9	9.8	11.3	+1 22	+2.0	„ 9.7								

\* Locus BD.  $-21^{\circ} 10'62$  respondet huius stellae A. R. et Decl. alterius.

$$M = 9.2 + 0.017 (G - 70.7).$$

1921

## W Aurigae

 $5^{\text{h}} 17^{\text{m}} 6^{\text{s}}$  (1855.0)  $+36^{\circ} 46'.2$ Max. = 2 414 648<sup>d</sup> (24. Decemb. 1898)  $+ 276^{\text{d}}$  E.

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1			5 <sup>M</sup> .3	5 <sup>M</sup> .2	-2 <sup>m</sup> 17 <sup>s</sup>	+29'.0	$\sigma$ Aurigae	36	43	9 <sup>M</sup> .8	9 <sup>M</sup> .5	10 <sup>M</sup> .6	-0 <sup>m</sup> 34 <sup>s</sup>	-3'.0	P. 10 <sup>M</sup> .4 s
2			6.8	6.9	-3 1	-30.8	PD. 5 <sup>M</sup> .16 RG--	37	43	9.8	9.5	10.6	-1 27	-9.4	
3			7.8		+4 30	-6.7	„ 6.98 GW	38	43	9.8	9.5	10.6	-1 31	-21.2	
4	0	8 <sup>M</sup> .3	8.5	8.4	+1 19	+19.9	P. 8.7 o'*	39	44	9.8	9.5	10.6	-2 38	+8.1	
5	4	8.4	8.7	8.5	-3 12	-8.3		40	44	9.8	9.5	10.6	+2 45	-23.9	
6	7	8.5	8.4	8.7	-1 58	+20.9		41	44	9.8	9.5	10.6	+1 2	+24.7	
7	10	8.6	9.0	8.8	-0 51	+27.2		42	44	9.8		10.6	-1 37	+6.6	
8	12	8.7	8.9	8.9	+2 26	-12.1		43	45	9.9	9.5	10.7	-0 57	+29.3	
9	13	8.7	8.8	9.0	+0 15	-23.9		44	45	9.9		10.7	-0 46	+5.8	„ f
10	16	8.8	9.2	9.1	+1 12	+6.8	„ 9.4 m'	45	47	9.9	9.5	10.8	-1 19	+12.7	
11	19	9.0	8.8	9.3	+1 35	-8.3		46	47	9.9		10.8	+2 48	+21.7	
12	20	9.0	9.1	9.3	-0 54	-27.7		47	47	9.9		10.8	-1 21	-5.0	
13	22	9.1	9.2	9.4	+0 55	-21.7		48	47	9.9	9.5	10.8	-2 25	-29.0	
14	24	9.1	8.9	9.5	+0 33	-3.9	„ 9.6 c	49	48	10.0	9.5	10.9	-2 13	-6.2	
15	27	9.2	9.1	9.7	+2 57	+3.6		50	48	10.0	9.5	10.9	+1 21	-7.3	
16	30	9.3	9.3	9.9	+1 50	-11.9		51	49	10.0	9.5	11.0	-1 36	-20.3	
17	32	9.4	9.2	10.0	+1 8	+11.7		52	49	10.0	9.5	11.0	+1 12	+0.4	
18	33	9.4	9.3	10.0	+3 3	+9.4		53	49	10.0		11.0	-0 6	+3.8	„ 10.8 g
19	33	9.4	9.4	10.0	+0 5	-21.7		54	50	10.0	9.5	11.0	+0 50	+9.5	
20	33	9.4	9.1	10.0	-2 3	+8.4		55	51	10.1	9.5	11.1	-2 59	-3.6	
21	33	9.4	9.5	10.0	-0 2	+12.3		56	51	10.1		11.1	-0 11	-8.7	
22	34	9.5	9.5	10.1	+2 49	-6.0		57	51	10.1		11.1	-0 45	-7.5	
23	35	9.5	9.4	10.1	+2 8	-7.0		58	52	10.1		11.1	+0 52	+12.0	
24	37	9.6	9.3	10.2	+2 58	+8.3		59	53	10.1	9.5	11.2	+2 40	-2.8	
25	38	9.6	9.2	10.3	-0 36	+17.8		60	53	10.1		11.2	-0 42	-0.8	„ 11.9 w
26	38	9.6	9.4	10.3	+2 46	+24.0		61	54	10.2		11.3	+1 16	+3.3	
27	38	9.6	9.1	10.3	-2 2	+9.9		62	54	10.2		11.3	+0 2	-1.9	„ 10.9 l
28	39	9.7		10.4	-0 38	+2.4	„ d	63	55	10.2		11.4	-0 20	-6.5	
29	39	9.7	9.5	10.4	-0 30	+3.4	„ 10.4 a	64	55	10.2		11.4	+0 29	+2.6	„ 10.7 z
30	40	9.7	9.5	10.4	+2 39	-2.1		65	56	10.2		11.4	+1 19	-11.7	
31	42	9.8	9.4	10.5	-2 43	+4.5		66	58	10.3		11.5	+0 9	+0.4	„ 11.2 k
32	42	9.8	9.4	10.5	+1 29	+25.3		67	60	10.4		11.7	+0 16	-11.9	
33	42	9.8	9.4	10.5	-1 43	-0.5		68	62	10.5		11.8	-0 38	+11.1	
34	43	9.8	9.5	10.6	-0 43	+3.7	„ 10.0 e	69	65	10.6		12.0	+1 20	-5.4	
35	43	9.8	9.4	10.6	-0 37	+24.0		70	65	10.6		12.0	-0 58	-6.0	

Num.	Gradius	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradius	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
71	65	10 <sup>M</sup> .6		12 <sup>M</sup> .0	-1 <sup>m</sup> 15 <sup>s</sup>	+11'.6		88	79	11 <sup>M</sup> .1		13 <sup>M</sup> .0	+0 <sup>m</sup> 19 <sup>s</sup>	-2'.1	P. 11 <sup>M</sup> .7 q
72	65	10.6		12.0	-0 7	+1.9	P. 11 <sup>M</sup> .6 h	89	80	11.1		13.1	+0 22	+5.4	
73	66	10.6		12.1	-1 6	+8.9		90	80	11.1		13.1	-1 9	+9.6	
74	66	10.6		12.1	-1 29	0.0									
75	67	10.6		12.2	-0 30	+5.7		91	81	11.1		13.2	-0 18	-6.0	
								92	81	11.1		13.2	-0 6	+0.8	dpl. **
76	69	10.7		12.3	+0 19	-5.1	„ 11.9 r						+0 4	+3.0	P. 11.9 n
77	70	10.7		12.4	+1 25	+3.1							-0 26	+0.4	„ 12.1 t
78	70	10.7		12.4	+0 16	-2.7	„ 11.7 p						-0 26	-0.7	„ 12.3 u
79	70	10.7		12.4	-1 1	+11.8									
80	72	10.8		12.5	+0 39	-11.4							-0 7	+0.9	„ 12.4 y
													-0 5	+0.9	„ 12.6 x
81	72	10.8		12.5	-0 14	-14.4							+0 8	-1.6	„ 13.4 $\mu$
82	73	10.8		12.6	+0 39	-12.6							+0 4	+0.6	„ 13.6 $\beta$
83	73	10.8		12.6	-1 19	0.0							+0 7	+0.9	„ 13.7 $\alpha$
84	74	10.9		12.6	+0 15	+6.9									
85	75	10.9		12.7	-0 4	+5.4	„ 11.6 m						0 0	-0.9	„ 14.1 $\eta$
													+0 8	-0.8	„ 14.1 $\theta$
86	75	10.9		12.7	-1 4	+8.4							+0 4	+1.1	„ 14.3 $\gamma$
87	77	11.0		12.9	-0 24	-10.5							+0 1	-1.1	„ 14.3 $\epsilon$

\* Parkhurst, APJ. vol. 18, 1903 p. 312, Tab. III (magnitudines et litterae).

\*\* 92 = Parkhurst (y + x).

$$M = 8.9 + 0.035 (G - 17.5).$$

2000

## RR Tauri

 $5^{\text{h}} 30^{\text{m}} 30^{\text{s}}$  (1855.0)  $+26^{\circ} 17'.1$ Periodus = 210<sup>d</sup>?

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1			5 <sup>M</sup> .7	5 <sup>M</sup> .0	+0 <sup>m</sup> 15 <sup>s</sup>	-29'.0	125 Tauri PD. 5 <sup>M</sup> .43 GW ,, 6.06 W+ ,, 6.59 WG+	28	55	10 <sup>M</sup> .0		10 <sup>M</sup> .4	+1 <sup>m</sup> 13 <sup>s</sup>	+12'.9	
2			6.7	5.7	-2 24	+32.6		29	59	10.1	9 <sup>M</sup> .5	10.6	0 0	- 2.7	
3			6.8	6.5	-0 34	+14.6		30	59	10.1	9.5	10.6	+0 27	+ 0.1	
4	0	8 <sup>M</sup> .2	8.3	8.0	-1 50	- 9.5		31	59	10.1		10.6	-0 21	+ 0.3	
5	4	8.3	8.0	8.2	+2 5	+14.7		32	60	10.1		10.7	-0 14	+ 8.1	
6	7	8.4	8.5	8.3	+2 22	- 6.5		33	65	10.3	9.5	10.9	+1 21	-11.4	
7	11	8.5	8.6	8.5	+2 28	- 5.7		34	69	10.4	9.5	11.1	+0 57	- 7.5	
8	16	8.7	9.0	8.7	+1 34	-14.7		35	71	10.5		11.1	-0 19	-24.6	*
9	18	8.8	8.9	8.8	-0 36	- 3.6		36	71	10.5		11.1	-0 27	-24.8	*
10	24	9.0	9.0	9.0	-1 37	-21.8		37	75	10.6		11.3	+0 35	- 1.2	
11	27	9.1	9.0	9.2	+1 1	-22.8		38	78	10.7		11.5	-0 33	+ 3.3	
12	28	9.1	9.3	9.2	-2 1	+17.1		39	82	10.8		11.7	-0 44	+ 4.2	
13	31	9.2	9.2	9.3	-0 46	+23.3		40	85	10.9		11.8	+0 47	- 9.2	
14	33	9.2	9.4	9.4	+1 24	-30.0		41	87	11.0		11.9	+0 22	- 2.7	
15	33	9.2	9.2	9.4	+0 27	+21.8		42	87	11.0		11.9	-0 32	+ 8.7	
16	35	9.3	9.4	9.5	-1 51	+23.3		43	89	11.0		12.0	+0 18	- 8.7	
17	36	9.3	9.4	9.6	+0 24	-26.4		44	90	11.1		12.1	+0 9	+10.5	
18	36	9.3	9.3	9.6	+0 57	-20.9		45	92	11.1		12.1	+0 17	+12.7	
19	40	9.5	9.2	9.7	-1 58	-18.2		46	94	11.2		12.2	-0 30	-10.3	
20	41	9.5	9.5	9.8	-1 41	+20.6		47	96	11.3		12.3	+0 17	- 6.7	
21	41	9.5	9.4	9.8	-1 57	+27.5		48	96	11.3	9.5	12.3	+1 5	-15.6	
22	43	9.6	9.2	9.9	-0 21	0.0		49	97	11.3		12.4	+0 42	+12.2	
23	45	9.6	9.4	10.0	+1 9	+15.0		50	99	11.4		12.5	+0 34	-12.1	
24	48	9.7	9.5	10.1	-1 18	- 3.5		51	104	11.5		12.7	-0 15	- 9.0	
25	50	9.8	9.5	10.2	-1 3	-14.7		52	104	11.5		12.7	+0 39	+ 5.4	dpl.
26	51	9.8	9.5	10.2	+0 2	+12.7		53	105	11.6		12.7	+0 40	- 5.1	
27	55	10.0	9.5	10.4	-1 1	- 3.0	dpl.	54	109	11.7		12.9	-0 4	+ 2.8	
								55	115	11.9		13.2	+0 3	- 2.7	

\* (35 + 36) = BD. + 25<sup>h</sup> 895, 9<sup>M</sup>.5.

$$M = 9.3 + 0.032 (G - 34.6).$$



## Z &amp; RU Tauri

5<sup>h</sup> 44<sup>m</sup> 10<sup>s</sup> (1855.0) +15° 50'.4Z Max. = 2416 130<sup>d</sup> (15 Jan. 1903) + 516<sup>d</sup> E.RU Max. = 2416 744<sup>d</sup> (20 Sept. 1904) + 592<sup>d</sup> E.

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1	0	8 <sup>M</sup> .3	8 <sup>M</sup> .4	7 <sup>M</sup> .8	+2 <sup>m</sup> 8 <sup>s</sup>	-22'.9		36	81	10 <sup>M</sup> .1		10 <sup>M</sup> .5	-0 <sup>m</sup> 6 <sup>s</sup>	+ 3'.3	
2	8	8.5	8.5	8.0	+0 31	+27.5		37	82	10.1	9 <sup>M</sup> .5	10.6	+1 11	-19.8	
3	11	8.5	8.4	8.1	+1 40	+27.6		38	83	10.1	9.5	10.6	-1 3	- 5.0	
4	14	8.6	8.4	8.2	+1 15	+16.3		39	83	10.1		10.6	-1 27	+22.8	
5	18	8.7	9.0	8.3	-2 29	+ 7.2		40	83	10.1		10.6	+0 30	+ 1.1	
6	19	8.7	8.7	8.3	-0 30	-16.2		41	85	10.2		10.7	-0 56	+ 9.0	
7	22	8.8	9.0	8.4	+0 44	+25.4		42	85	10.2		10.7	+1 5	-13.5	
8	32	9.0	9.3	8.7	+1 21	-26.9		43	85	10.2		10.7	+0 42	- 7.2	
9	37	9.1	9.0	8.8	-1 56	-23.1		44	85	10.2		10.7	+0 36	- 7.1	
10	40	9.2	9.2	8.9	+0 39	-32.0		45	85	10.2		10.7	+0 4	+11.1	
11	42	9.2		9.0	-0 42	- 0.3	var. ? *	46	86	10.2		10.8	+0 17	+11.2	
12	43	9.2	9.3	9.1	-1 38	+22.5		47	91	10.3		11.0	+0 43	- 1.2	
13	52	9.4	9.3	9.4	-1 22	- 6.0		48	93	10.3		11.1	-0 3	-16.8	
14	57	9.6	9.4	9.6	+1 11	+27.3	dpl.	49	95	10.4		11.2	-1 0	-15.3	
15	60	9.6	9.5	9.7	+0 1	-17.7		50	95	10.4		11.2	-0 44	- 7.8	
16	61	9.6	9.5	9.7	-0 46	+18.3		51	97	10.4		11.3	-0 34	-11.4	
17	61	9.6	9.5	9.7	-1 2	-23.1		52	97	10.4		11.3	+0 7	-12.2	
18	61	9.6	9.4	9.7	+0 40	-14.7		53	100	10.5		11.4	-0 11	-10.5	
19	61	9.6	9.5	9.7	+0 1	-21.0		54	101	10.5		11.5	+0 48	+ 6.7	
20	62	9.7	9.4	9.8	-2 19	+12.8		55	102	10.5		11.5	+0 6	- 3.3	
21	64	9.7	9.5	9.8	+0 33	-29.9		56	102	10.5		11.5	-0 24	- 1.2	
22	65	9.7	9.4	9.9	+0 36	- 6.9		57	103	10.6		11.6	-0 22	- 8.3	
23	66	9.8	9.4	9.9	+0 24	+20.3		58	103	10.6		11.6	-0 12	+ 4.1	
24	67	9.8	9.5	10.0	+1 34	0.0		59	104	10.6		11.6	-0 30	- 1.3	
25	71	9.9		10.1	-0 31	+ 8.2		60	104	10.6		11.6	-0 8	- 2.2	
26	72	9.9	9.4	10.1	-0 39	+ 2.9		61	105	10.6		11.7	-0 21	-12.6	
27	73	9.9	9.5	10.2	-2 2	+ 4.4		62	105	10.6		11.7	-0 35	-17.4	
28	73	9.9	9.5	10.2	-0 19	+ 1.5		63	105	10.6		11.7	-0 59	+ 3.3	
29	74	9.9	9.5	10.2	-1 2	- 9.7		64	105	10.6		11.7	-1 3	- 5.7	
30	74	9.9		10.2	+0 47	+ 0.2		65	106	10.6		11.8	-0 49	- 2.7	
31	75	9.9	9.5	10.3	-0 27	-29.6		66	107	10.7		11.8	+0 18	-11.8	
32	76	10.0	9.5	10.3	+0 23	+16.1	dpl.	67	107	10.7		11.8	-0 18	-13.2	
33	76	10.0		10.3	+0 31	- 8.7	**	68	108	10.7		11.9	-0 35	-17.9	
34	77	10.0	9.5	10.4	-0 12	+ 3.5		69	108	10.7		11.9	-0 26	+ 0.9	
35	81	10.1		10.5	+0 9	+ 6.4		70	109	10.7		12.0	-1 4	-10.0	

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
71	111	10 <sup>M</sup> .7		12 <sup>M</sup> .1	-0 <sup>m</sup> 9 <sup>s</sup>	0'.0		83	122	11 <sup>M</sup> .0		12 <sup>M</sup> .7	+0 <sup>m</sup> 26 <sup>s</sup>	+11'.6	
72	111	10.7		12.1	-0 41	- 3.0		84	122	11.0		12.7	+0 1	- 1.5	
73	111	10.7		12.1	-0 38	- 6.2		85	122	11.0		12.7	-0 8	- 4.3	
74	111	10.7		12.1	-0 45	+ 9.9		86	122	11.0		12.7	-0 7	+ 2.4	
75	113	10.8		12.2	-0 46	+ 7.2		87	123	11.0		12.8	+0 22	- 2.7	
76	114	10.8		12.2	+0 16	- 9.6		88	123	11.0		12.8	+0 15	+ 3.6	
77	115	10.8		12.3	-0 18	+ 0.5		89	123	11.0		12.8	-0 4	+ 0.9	
78	116	10.9		12.4	-0 42	+ 5.1		90	124	11.0		12.8	+0 4	- 8.1	
79	116	10.9		12.4	+0 3	- 0.9		Z			var.		-0 6	- 5.2	
80	118	10.9		12.5	+0 35	- 2.5		RU			var.		+0 6	+ 5.2	
81	121	11.0		12.6	-0 16	- 3.8									
82	121	11.0		12.6	-0 14	-13.8									

\* Designata RS Tauri in AN. 3914; vide Pickering, Cat. II, 1907, notam ad 054615 b.

\*\* Var.? vide AN. vol. 161 p. 211. De ambabus vide Graff in AN. vol. 166 pp. 261—262.

$$M = 9.2 + 0.022 (G - 41.0).$$

2186

## X Aurigae

 $6^h 0^m 55^s$  (1855.0)  $+50^\circ 15'.1$ Max. = 2 416 100<sup>d</sup> (16. Dec. 1902)  $+ 161^d$  E.

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1	0	8 <sup>M</sup> .4	8 <sup>M</sup> .2	8 <sup>M</sup> .4	-4 <sup>m</sup> 11 <sup>s</sup>	+21'.0	G. 8 <sup>M</sup> .5 b*	28	94	11 <sup>M</sup> .0	11 <sup>M</sup> .6	+1 <sup>m</sup> 12 <sup>s</sup>	+14'.2		
2	4	8.5	8.5	8.5	-2 15	- 4.2		29	100	11.2	11.8	+1 7	- 0.1		
3	5	8.5	8.7	8.6	-3 39	-17.8		30	105	11.3	11.9	-1 30	- 9.7		
4	6	8.5	8.8	8.6	+2 16	+32.9		31	109	11.4	12.0	+0 40	- 8.1		
5	8	8.6	8.3	8.7	+0 10	-17.3		32	110	11.4	12.1	+1 15	- 8.1		
6	11	8.7	8.7	8.8	+0 28	+23.2	„ 8.7 c	33	116	11.6	12.2	+1 16	- 3.3	**	
7	27	9.1	9.5	9.4	-1 33	+24.1		34	118	11.7	12.3	-0 36	+17.3		
8	31	9.2	9.4	9.5	+3 4	- 0.8		35	118	11.7	12.3	-0 10	-13.8		
9	33	9.3		9.6	+0 7	-18.0		36	121	11.7	12.4	-0 10	- 5.2	G. 11 <sup>M</sup> .1 m	
10	35	9.3	9.4	9.7	+2 51	+ 3.0		37	121	11.7	12.4	-0 47	+ 5.9		
11	39	9.4	9.5	9.8	-1 28	+26.2		38	125	11.9	12.5	-0 1	- 7.2		
12	39	9.4		9.8	-1 56	+27.4		39	126	11.9	12.5	-0 47	+ 3.0		
13	41	9.5		9.9	+1 52	-11.4		40	126	11.9	12.5	-1 8	+ 0.8		
14	43	9.6	9.5	10.0	+1 51	+18.6		41	128	11.9	12.5	+1 5	+ 5.8		
15	44	9.6		10.0	+2 15	-11.7		42	130	12.0	12.6	-1 16	+ 6.6		
16	45	9.6		10.1	-0 16	- 4.4	„ 9.8 f	43	130	12.0	12.6	+0 40	- 6.6		
17	51	9.8	9.5	10.3	-0 37	+26.7		44	131	12.0	12.6	+0 3	+ 8.4	„ 11.0 n	
18	54	9.9	9.5	10.4	+1 55	+ 7.1		45	132	12.1	12.6	-0 5	- 5.4		
19	57	10.0	9.4	10.5	+0 35	+13.9		46	133	12.1	12.6	-0 17	- 7.8		
20	62	10.1		10.6	+0 22	+ 6.6		47	133	12.1	12.6	+0 1	+ 9.9		
21	66	10.2	9.5	10.8	+2 27	- 5.9		48	135	12.1	12.7	+0 46	- 8.1		
22	69	10.3		10.9	-0 48	+21.1		49	139	12.2	12.8	-1 9	+11.4		
23	72	10.4		11.0	-0 36	+17.1		50	141	12.3	12.9	+0 18	- 2.7		
24	76	10.5		11.1	-0 40	+ 0.8		51	145	12.4	13.0	-0 52	+ 5.4		
25	78	10.5		11.2	+1 58	+ 2.1		52	147	12.5	13.0	-0 23	+ 3.8		
26	85	10.7		11.4	-0 29	- 5.8	„ 10.5 h	53	151	12.6	13.1	-0 16	+ 5.9	„ 12.4 k	
27	90	10.9		11.5	-0 55	+17.9		54	155	12.7	13.2	-0 4	+ 1.0		

\* Graff, A. N. 3925 (magnitudines et litterae).

\*\* (23 + 34) = BD.  $+50^\circ 12' 79''$ , 9<sup>M</sup>.5.

$$M = 8.5 + 0.028 (G - 5.2).$$

## V Monocerotis\*

6<sup>h</sup> 15<sup>m</sup> 25<sup>s</sup> (1855.0) — 2° 7'.7Max. = 2 409 509<sup>d</sup> (28 Nov. 1884) + 332<sup>d</sup>.9 E.

Num.	Gradus	Magn.	BD.**	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1			6 <sup>M</sup> .5	5 <sup>M</sup> .7	+3 <sup>m</sup> 54 <sup>s</sup>	+41'.9		38	126	10 <sup>M</sup> .3	10 <sup>M</sup>	11 <sup>M</sup> .2	-0 <sup>m</sup> 39 <sup>s</sup>	-14'.7	
2	0	7 <sup>M</sup> .2	7.2	6.6	+1 49	+46.9		39	126	10.3		11.2	+0 12	+ 1.8	
3	26	7.8	7.8	7.8	-0 13	-30.7		40	126	10.3		11.2	-0 9	+ 4.4	
4	34	8.0	8.1	8.0	-2 28	+ 8.3		41	127	10.4		11.2	+1 25	+ 7.4	
5	58	8.6	8.8	8.9	-0 23	+29.4		42	127	10.4		11.2	-0 5	-14.8	
6	60	8.7	8.5	8.9	-0 43	+ 9.8		43	129	10.4		11.3	-0 43	+ 0.3	
7	65	8.8	8.8	9.1	+0 25	-27.5		44	130	10.4		11.4	+0 10	+ 3.8	
8	67	8.9	9.0	9.2	-0 26	+24.2		45	130	10.4		11.4	+0 34	+ 5.8	
9	69	8.9	9.0	9.3	-0 9	+ 6.1		46	133	10.5		11.5	-0 55	- 8.9	
10	73	9.0	9.1	9.4	-1 46	- 7.5		47	136	10.6		11.6	+0 30	+ 6.6	
11	74	9.0	9.1	9.4	+2 3	+24.4		48	141	10.7		11.8	-0 23	- 3.6	
12	75	9.1	9.0	9.5	-0 28	-14.9		49	144	10.8		11.9	+0 41	- 6.0	
13	76	9.1	9.2	9.5	+1 19	-12.9		50	148	10.9		12.0	+0 41	-14.1	
14	80	9.2	9.1	9.6	-2 18	+ 6.2		51	150	10.9		12.1	+0 14	- 7.1	
15	85	9.3	9.3	9.8	+1 25	+15.2		52	152	11.0		12.2	+0 34	-13.8	
16	88	9.4	9.5	9.9	-1 31	- 0.9		53	152	11.0		12.2	-0 42	- 0.3	
17	93	9.5	9.5	10.1	+0 49	+19.2		54	154	11.0		12.3	-0 7	+ 2.9	
18	93	9.5	9.6	10.1	+0 37	+12.6		55	155	11.1		12.3	-0 47	+ 9.9	
19	95	9.6	9.5	10.2	-0 54	+30.0		56	156	11.1		12.4	+0 31	- 0.1	
20	98	9.6	9.5	10.3	-1 58	+18.0		57	156	11.1		12.4	+0 31	- 6.9	
21	99	9.7	9.5	10.3	+0 29	-18.6		58	157	11.1		12.4	-0 39	-12.7	
22	102	9.7	9.5	10.4	-0 34	+ 9.3		59	160	11.2		12.5	+0 10	- 7.7	
23	103	9.8	9.6	10.4	+0 37	- 8.4		60	162	11.2		12.6	+0 6	+11.9	
24	105	9.8	9.5	10.5	-1 28	+22.0		61	166	11.3		12.8	+0 8	-11.7	
25	105	9.8	9.8	10.5	+0 34	+ 7.8		62	166	11.3		12.8	+0 42	-14.4	
26	107	9.9		10.5	+0 52	+ 0.7		63	166	11.3		12.8	-0 3	+11.9	
27	110	9.9	9.5	10.6	+1 6	+13.9		64	170	11.4		12.9	+0 34	-12.0	
28	111	10.0	9.8	10.7	-0 36	-26.8		65	171	11.5		13.0	-0 14	+12.1	
29	113	10.0		10.8	-1 6	-18.0		66	173	11.5		13.1	-0 3	+14.4	
30	115	10.1	9.5	10.8	+1 19	+ 7.8		67	174	11.5		13.1	+0 44	- 6.9	
31	115	10.1		10.8	+0 33	+10.8		68	176	11.6		13.2	+0 52	-12.3	
32	118	10.1		10.9	-1 37	+ 4.2		69	178	11.6		13.3	+0 39	- 4.2	
33	119	10.2	9.8	11.0	-0 50	-19.2		70	180	11.7		13.4	+0 54	-14.1	
34	119	10.2		11.0	-0 6	- 6.7		71	182	11.7		13.5	+0 13	+ 9.0	
35	119	10.2		11.0	+0 30	+12.1		72	182	11.7		13.5	+0 1	+ 2.1	
36	123	10.3		11.1	-0 43	- 5.9		73	183	11.8		13.6	+0 15	- 0.2	
37	124	10.3		11.1	+0 19	+19.8									

\* Etiam in Serie IV.

\*\* Omnes magnitudines Cl. Schönfeld.

$$M = 9.0 + 0.025 (G - 72.7).$$

## R Monocerotis \*

6<sup>h</sup> 31<sup>m</sup> 15<sup>s</sup> (1855.0) + 8° 51'.6

Variatio irregularis.

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1	0	7 <sup>M</sup> .7	7 <sup>M</sup> .0	6 <sup>M</sup> .7	+1 <sup>m</sup> 59 <sup>s</sup>	+15'.2	PD. 7 <sup>M</sup> .25 WG, sf " 8.28 GW, np } $\Sigma$ 953	38	89	10 <sup>M</sup> .4		11 <sup>M</sup> .3	+0 <sup>m</sup> 48 <sup>s</sup>	- 5'.3	
2	11	8.0			+1 59	+15.3		39	89	10.4		11.3	-1 3	+ 7.2	
3	11	8.0			-1 39	+24.3		40	90	10.4		11.4	-1 5	-13.8	
4	19	8.3			+1 13	-35.1		41	90	10.4		11.4	-0 48	+ 5.3	
5	28	8.5			-0 33	+25.5		42	91	10.4		11.4	+0 14	-15.3	
6	29	8.6	8.4	8.4	-0 43	-14.9		43	94	10.5		11.5	+0 34	+12.0	
7	32	8.6	8.5	8.6	-1 33	+11.1		44	94	10.5		11.5	-0 19	- 6.0	
8	35	8.7	8.9	8.7	+0 25	-23.2		45	94	10.5		11.5	-0 44	+12.5	
9	37	8.8	9.2	8.8	+0 49	-11.9		46	109	11.0		12.2	+0 11	+14.5	
10	39	8.9	9.1	8.9	+1 28	-14.2		47	109	11.0		12.2	-1 3	+ 3.8	
11	41	8.9	9.3	9.0	+0 50	-27.8	var. ?	48	111	11.0		12.3	-0 22	+11.4	
12	43	9.0	9.3	9.1	+1 31	-15.4		49	112	11.0		12.3	+0 6	- 8.3	
13	(47)	9.1	8.9	9.3	+0 8	- 5.7		50	112	11.0		12.3	-1 0	+12.9	
14	48	9.1	9.3	9.4	+0 58	-22.1		51	114	11.1		12.4	-0 30	+ 8.4	
15	52	9.2	9.3	9.5	-0 28	-12.2		52	(115)	11.1		12.5	-0 54	- 5.4	
16	54	9.3	9.2	9.6	-1 31	-15.8	* *	53	116	11.2		12.5	+0 41	+10.2	
17	55	9.3	9.0	9.7	-1 17	+11.2		54	116	11.2		12.5	-0 49	- 2.7	
18	56	9.4	9.4	9.8	-1 47	+21.0		55	121	11.3		12.7	+0 33	- 5.9	
19	60	9.5		9.9	-0 24	+ 5.8		56	121	11.3		12.7	-1 7	- 4.2	
20	63	9.6		10.1	-0 26	+17.6		57	122	11.3		12.8	+0 38	- 6.5	
21	64	9.6	9.3	10.1	+0 6	+ 1.8	* * * *	58	122	11.3		12.8	+0 38	+ 8.1	
22	70	9.8	9.5	10.4	+0 18	-11.1		59	122	11.3		12.8	+0 29	-11.4	
23	70	9.8	9.5	10.4	+1 12	-23.9		60	123	11.4		12.8	-1 1	- 0.9	
24	71	9.8	9.3	10.5	-1 36	+ 0.8		61	(123)	11.4		12.8	-0 56	- 5.4	
25	75	9.9	9.5	10.6	-1 13	+20.1		62	125	11.4		12.9	-0 15	- 2.4	
26	77	10.0		10.7	+0 6	- 9.6	* * * *	63	125	11.4		12.9	+0 38	- 3.9	
27	80	10.1		10.9	-0 30	+13.7		64	126	11.5		13.0	+0 15	+ 0.6	
28	80	10.1		10.9	-1 2	- 5.1		65	129	11.6		13.1	+0 35	+ 8.9	
29	80	10.1		10.9	+1 4	-18.6		66	129	11.6		13.1	-0 48	+ 4.4	
30	81	10.1	9.5	10.9	+0 44	- 3.0		67	130	11.6		13.1	+0 15	+ 1.2	
31	83	10.2		11.0	-0 25	+ 4.8	* * *	68	130	11.6		13.1	+0 18	+ 7.2	
32	84	10.2		11.1	+0 10	-15.6		69	131	11.6		13.2	-1 3	- 2.9	
33	85	10.2		11.1	-1 30	+18.7		70	133	11.7		13.3	-0 9	+ 3.8	
34	86	10.3		11.2	+0 45	- 4.2		71	133	11.7		13.3	-0 10	- 2.4	
35	86	10.3		11.2	-0 27	+14.2		72	134	11.7		13.3	-0 15	- 3.6	
36	87	10.3		11.2	+0 44	+ 8.1	* * *	73	135	11.7		13.4	-0 13	+ 3.9	
37	89	10.4		11.3	-1 29	+18.8							-0 1	- 2.3	var. ? Picke Cat. II

\* In nebula N.G.C. 2261.

\*\* (19 + 31) = BD. + 8° 1424, 9<sup>M</sup>.5.

\*\*\* (33 + 37) = BD. + 9° 1308, 9.4.

\*\*\*\* (27 + 35) = BD. + 9° 1318, 9.5.

$$M = 9.0 + 0.030 (G - 43.8).$$

2376

## S Lyncis

 $6^h 32^m 3^s$  (1855.0)  $+58^\circ 2'.7$ Max. =  $2414265^d$  (6 Dec. 1897)  $+298^d.1$  E.

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1	0	8 <sup>M</sup> .2	8 <sup>M</sup> .0	7 <sup>M</sup> .7	+2 <sup>m</sup> 5 <sup>s</sup>	- 8'.3		24	59	10 <sup>M</sup> .1		11 <sup>M</sup> .0	+4 <sup>m</sup> 1 <sup>s</sup>	- 7'.0	* *
2	7	8.4	8.8	8.1	-1 1	+32.9		25	60	10.1		11.1	+1 27	- 2.4	
3	10	8.5	8.7	8.3	-1 42	+ 6.0		26	65	10.3		11.3	-1 22	+13.8	
4	11	8.5	8.5	8.4	+0 7	+18.2		27	69	10.4		11.5	-0 33	-11.8	
5	15	8.7	8.6	8.6	-1 31	+22.7		28	71	10.5		11.6	+0 46	- 2.7	
6	16	8.7	8.6	8.6	-1 39	+23.1		29	73	10.6		11.7	-0 55	+12.9	
7	16	8.7	8.9	8.6	-3 36	+ 6.0		30	74	10.6		11.8	-2 14	- 2.1	
8	22	8.9	8.7	9.0	+2 52	-14.7		31	75	10.6		11.9	-0 31	+11.7	
9	24	9.0	9.0	9.1	+0 47	-24.7		32	79	10.8		12.0	-2 8	- 9.3	
10	28	9.1	9.3	9.3	+1 32	+ 2.1		33	84	10.9		12.3	-0 18	-12.7	
11	34	9.3	9.2	9.6	-1 6	-28.1		34	85	11.0		12.3	+0 5	- 5.3	
12	35	9.3	9.4	9.7	+1 57	+ 8.9		35	89	11.1		12.5	-1 15	- 5.3	
13	37	9.4	9.0	9.8	-0 22	+ 1.5		36	91	11.2		12.6	-0 25	0.0	
14	42	9.6	9.4	10.1	-1 49	-15.3		37	98	11.4		12.9	-0 37	- 1.7	
15	45	9.7	9.5	10.2	+3 47	+ 2.3		38	99	11.4		13.0	-0 43	+11.2	
16	47	9.7		10.3	+0 31	-14.5		39	99	11.4		13.0	-0 13	- 2.1	
17	50	9.8		10.5	-1 7	+25.2	*	40	100	11.5		13.0	-0 30	+12.0	
18	51	9.8		10.6	+4 0	- 7.9	* *	41	101	11.5		13.1	+1 10	+ 9.3	
19	53	9.9	9.5	10.7	-3 36	- 0.6		42	101	11.5		13.1	-0 17	+ 5.9	
20	55	10.0		10.8	-0 34	-19.2		43	103	11.6		13.1	+0 35	+ 0.5	dpl.
21	55	10.0		10.8	-0 59	+25.1	*	44	104	11.6		13.2	-0 51	-12.0	
22	57	10.0		10.9	+1 17	+ 5.3		45	109	11.8		13.4	+0 10	- 6.3	
23	59	10.1		11.0	-0 41	-15.1									

\* (17 + 21) = BD. +  $58^\circ 958$ , 9<sup>M</sup>.5.\*\* (18 + 24) = BD. +  $57^\circ 1007$ , 9.4.

$$M = 8.7 + 0.033 (G - 16.2).$$

## X Geminorum

6<sup>h</sup> 37<sup>m</sup> 50<sup>s</sup> (1855.0) +30° 25'.6Max. = 2414 234<sup>d</sup> (5 Nov. 1897) + 262<sup>d</sup> 7 E.

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1			7 <sup>M</sup> .0	7 <sup>M</sup> .1	-1 <sup>m</sup> 59 <sup>s</sup>	+32'.6	$\Sigma$ 957 PD. 7 <sup>M</sup> .52 GW N 3 *	36	86	10 <sup>M</sup> .5		11 <sup>M</sup> .7	+0 <sup>m</sup> 9 <sup>s</sup>	+ 2'.1	B**** 11 <sup>M</sup> .2 n. 9
2	0	7 <sup>M</sup> .7	8.2	7.9	-0 32	-26.6		37	89	10.6		11.8	-0 22	+ 6.1	
3	3	7.8	7.8	8.0	+0 38	- 9.6		38	89	10.6		11.8	-0 11	+23.0	
4	12	8.1	8.2	8.4	+0 23	+20.9		39	92	10.7		11.9	-0 6	+ 9.0	
5	13	8.1	8.2	8.5	-2 34	+12.2		40	97	10.8		12.1	+1 27	+14.3	
6	22	8.4	8.7	8.9	+2 0	- 8.6		41	97	10.8		12.1	+0 39	-14.4	
7	34	8.8	9.0	9.4	-1 18	+10.0	„ 14	42	99	10.9		12.2	-1 10	+ 0.1	
8	36	8.9	8.9	9.5	-1 36	- 5.8	„ 15	43	99	10.9		12.2	+0 43	- 3.1	
9	40	9.0	9.1	9.6	+2 29	+ 6.4		44	102	11.0		12.3	-1 15	-13.0	
10	41	9.0	8.6	9.7	-2 46	+13.4	„ 13	45	103	11.0		12.4	-0 1	+14.1	
11	42	9.1	8.9	9.7	-1 59	+20.4		46	105	11.1		12.5	-0 16	- 3.9	
12	45	9.2	9.0	9.9	-2 5	-11.3	„ 20	47	106	11.1		12.5	-0 32	+12.1	
13	51	9.3	9.2	10.1	-1 20	-23.6	„ 23	48	106	11.1		12.5	-0 37	- 6.6	
14	54	9.4	9.3	10.3	-1 16	+13.8		49	110	11.2		12.7	-0 3	- 1.1	B. 11.8 „ 5
15	55	9.5		10.3	+2 28	- 8.4		50	111	11.3		12.7	-0 2	+21.2	****
16	56	9.5	9.5	10.4	+1 34	-16.9		51	111	11.3		12.7	-0 32	+ 2.4	
17	58	9.6	9.3	10.4	-0 24	-17.9	„ 25	52	111	11.3		12.7	+1 1	+ 6.6	
18	61	9.7	9.5	10.6	-2 5	-26.0	„ 28	53	113	11.3		12.8	+1 23	+ 0.6	
19	61	9.7		10.6	-2 16	-15.7	„ 30 + 49	54	114	11.4		12.8	+0 28	-10.1	trpl.
20	62	9.7	9.5	10.6	-0 12	+26.3		55	114	11.4		12.8	-1 2	+ 5.1	
21	63	9.7	9.5	10.7	-0 2	-23.3	„ 29	56	117	11.5		12.9	+0 18	+ 3.2	
22	64	9.8		10.7	+1 33	+20.1	**	57	119	11.5		13.0	-0 59	+ 5.4	
23	66	9.8	9.4	10.8	+0 47	-16.4		58	120	11.6		13.1	-0 46	+10.2	
24	66	9.8		10.8	+1 35	+18.8	**	59	120	11.6		13.1	0 0	+ 0.8	B. 12.5 „ 6
25	69	9.9	9.5	10.9	-0 51	-27.9	N 39	60	120	11.6		13.1	+0 55	- 3.1	
26	71	10.0	9.5	11.0	+2 21	+ 2.2		61	122	11.6		13.2	-0 46	+12.6	
27	72	10.0		11.0	-0 1	+20.6	****	62	123	11.6		13.2	+0 53	- 3.6	
28	74	10.1	9.5	11.1	+1 47	-30.2		63	125	11.7		13.3	+0 49	+ 4.4	
29	75	10.1		11.2	-0 14	+18.4							-0 7	- 1.2	„ 13.4 „ 2
30	76	10.1		11.2	-1 11	- 7.9	„ 40						-0 9	- 1.9	„ 13.8 „ 1
31	78	10.2		11.3	-1 2	+12.6							+0 1	+ 0.9	„ 14.2 „ 8
32	79	10.2	9.5	11.3	-2 15	-25.0	„ 41						-0 4	- 1.7	„ 15.0 „ 4
33	80	10.3		11.4	-0 11	+20.3							-0 4	- 1.0	„ 15.3 „ 3
34	80	10.3		11.4	+0 4	- 8.4				Nova			-2 54	-20.3	1903, 5 <sup>M</sup> - < 14 <sup>M</sup> .
35	82	10.3	9.5	11.5	+0 18	- 3.6									

\* Numeri (N) ex „Chart and Catalogue for observing Nova Geminorum“, Washington 1893.

\*\* (22 + 24) = BD. + 30° 1334, 9<sup>M</sup>.5.

\*\*\* Bellamy, Monthly Not. vol. LXIII, 1903 p. 526 (magnit. photograph. et numeri).

\*\*\*\* (27 + 50) = BD. + 30° 1327, 9<sup>M</sup>.5.

M = 9.0 + 0.032 (G - 40.3).

2468

## Y Monocerotis

 $6^{\text{h}} 48^{\text{m}} 49^{\text{s}}$  (1855.0)  $+ 11^{\circ} 25'.7$ Max. =  $2\,415\,790^{\text{d}}$  (9 Febr. 1902)  $+ 225^{\text{d}}$  E.

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1			$7^{\text{M}}.0$	$6^{\text{M}}.2$	$+0^{\text{m}}32^{\text{s}}$	$+40'.2$	PD. $6^{\text{M}}.51$ GW	26	65	$9^{\text{M}}.9$		$10^{\text{M}}.5$	$+0^{\text{m}}24^{\text{s}}$	$+ 6'.2$	
2	0	$7^{\text{M}}.9$	8.0	7.6	$+0 37$	$-16.3$		27	68	9.9		10.7	$+0 20$	$+14.7$	
3	4	8.0	8.0	7.8	$-0 2$	$+ 9.1$		28	70	10.0	$9^{\text{M}}.5$	10.7	$+0 46$	$- 1.2$	
4	10	8.2	8.3	8.0	$-0 32$	$-13.2$		29	72	10.1		10.8	$-0 8$	$-12.0$	
5	12	8.3	8.3	8.1	$-2 5$	$+11.4$		30	73	10.1	$9.5$	10.9	$-0 43$	$+23.3$	
6	16	8.4	8.7	8.3	$+1 1$	0.0		31	74	10.1		10.9	$-1 38$	$+11.4$	
7	21	8.5	8.5	8.6	$-0 14$	$+30.3$		32	74	10.1	$9.5$	10.9	$+0 4$	$+ 4.8$	
8	24	8.6	9.2	8.7	$+0 24$	$- 6.6$		33	80	10.3	$9.5$	11.2	$+0 5$	$+ 5.4$	
9	26	8.7	8.8	8.8	$-0 47$	$-18.6$		34	80	10.3		11.2	$+0 58$	$+ 0.9$	
10	33	8.9	8.6	9.1	$+0 23$	$- 5.7$		35	80	10.3		11.2	$+1 8$	$- 0.9$	
11	37	9.0	9.4	9.3	$-1 17$	$+29.8$	*	36	80	10.3	$9.5$	11.2	$-1 24$	$+14.7$	
12	38	9.0	8.8	9.3	$-1 0$	$- 6.0$		37	84	10.4		11.4	$-1 6$	$+ 6.0$	
13	44	9.2	9.4	9.6	$+2 0$	$- 9.3$		38	89	10.6		11.6	$-1 4$	$-11.4$	
14	48	9.3	9.2	9.8	$+0 21$	$-14.0$		39	89	10.6		11.6	$-0 56$	$+ 4.5$	
15	51	9.4	9.4	9.9	$-1 27$	$- 8.7$		40	91	10.6		11.7	$+0 15$	$- 0.3$	
16	53	9.5	9.5	10.0	$+1 48$	$-15.4$		41	94	10.7		11.8	$-0 32$	$- 3.0$	
17	54	9.5	9.5	10.1	$+1 33$	$-13.8$		42	95	10.8		11.8	$+0 31$	$+11.9$	
18	56	9.6	9.5	10.1	$-1 44$	$-20.0$		43	98	10.8		12.0	$+0 44$	$- 3.6$	
19	57	9.6	9.4	10.2	$-0 45$	$+20.6$		44	99	10.9		12.0	$+0 21$	$+ 9.6$	
20	58	9.6	9.5	10.2	$-1 40$	$-17.3$		45	103	11.0		12.2	$+0 39$	$- 6.9$	
21	58	9.6	9.5	10.2	$+1 50$	$+29.3$	*	46	104	11.0		12.2	$+0 41$	$-10.2$	
22	60	9.7	9.5	10.3	$+1 32$	$+14.1$		47	104	11.0		12.2	$+0 42$	$+ 6.9$	
23	60	9.7	9.2	10.3	$+0 20$	$-13.8$		48	107	11.1		12.3	$+0 47$	$+ 5.7$	
24	63	9.8	9.5	10.4	$+1 58$	$+18.4$		49	109	11.2		12.4	$+0 44$	$- 6.9$	
25	65	9.9	9.5	10.5	$+1 47$	$+12.3$		50	109	11.2	$9.5$	12.4	$-0 38$	$+12.0$	var.?

\* (14 + 23) =  $\Sigma 995$ .

$$M = 8.7 + 0.030 (G - 26.6).$$



## V Canis Minoris

6<sup>h</sup> 59<sup>m</sup> 4<sup>s</sup> (1855.0) + 9° 5'.6Max. = 2410174<sup>d</sup> (24 Sept. 1886) + 364<sup>d</sup> E.

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1			6 <sup>M</sup> .6	6 <sup>M</sup> .0	-1 <sup>m</sup> 21 <sup>s</sup>	+18'.7	PD. 5 <sup>M</sup> .89 G—	41	98	10 <sup>M</sup> .0		10 <sup>M</sup> .9	+0 <sup>m</sup> 59 <sup>s</sup>	-14'.2	dpl.
2	0	8 <sup>M</sup> .4	8.5	7.6	-1 54	-20.8		42	100	10.1	9 <sup>M</sup> .5	11.0	+2 0	- 0.6	
3	6	8.5	8.6	7.8	+1 21	-24.2		43	102	10.1		11.0	+0 53	- 1.2	
4	12	8.6	8.4	8.0	-0 16	- 9.5		44	103	10.1		11.1	-0 54	+ 3.1	
5	19	8.7	8.9	8.2	+1 4	+ 4.9		45	105	10.1		11.1	-0 30	+14.9	
6	22	8.7	8.7	8.3	+2 19	- 0.9		46	107	10.2		11.2	+0 7	+ 8.4	
7	25	8.8	8.8	8.4	-1 30	- 6.2		47	107	10.2		11.2	+0 51	- 1.6	
8	28	8.8	8.8	8.5	+1 10	-15.8		48	110	10.2		11.3	-0 34	-12.7	
9	38	9.0	9.0	8.8	+0 25	+20.3		49	113	10.3		11.4	-0 3	- 0.9	
10	41	9.1	9.0	8.9	-0 26	-19.2		50	119	10.4		11.6	+0 26	+ 3.6	
11	43	9.1	9.2	9.0	-0 59	+14.0		51	122	10.4		11.7	+0 16	-10.2	
12	44	9.1	9.1	9.0	+1 12	-19.4		52	123	10.5		11.8	+0 42	+ 2.4	
13	49	9.2	9.1	9.2	-0 28	-19.8		53	125	10.5		11.8	+0 31	- 7.8	
14	49	9.2	9.1	9.2	-1 14	+28.9		54	130	10.6		12.0	+0 10	- 0.4	
15	49	9.2	9.2	9.2	-0 19	+11.4		55	132	10.6		12.1	-0 3	- 7.8	
16	51	9.2	9.3	9.3	-0 53	+10.6		56	132	10.6		12.1	+0 22	+15.1	
17	55	9.3	9.4	9.4	-1 12	+ 6.6		57	134	10.6		12.2	+0 6	- 2.5	
18	56	9.3	9.4	9.4	-2 0	-16.5		58	137	10.7		12.3	-0 39	+12.3	
19	57	9.3	9.1	9.5	0 0	-16.9		59	138	10.7		12.3	-0 16	-14.7	
20	58	9.4	9.2	9.5	-1 33	+ 1.6		60	141	10.8		12.4	-0 49	+ 5.3	dpl.
21	58	9.4		9.5	-1 28	-18.7		61	144	10.8		12.5	-0 13	+ 2.3	
22	59	9.4		9.5	+0 57	+ 5.2		62	144	10.8		12.5	+0 15	+ 3.8	
23	59	9.4	9.4	9.5	+0 31	+10.2		63	144	10.8		12.5	-0 14	-12.6	
24	60	9.4	9.4	9.6	-1 38	+17.3		64	146	10.8		12.6	+0 48	+ 1.8	
25	61	9.4	9.2	9.6	-1 11	-16.4		65	149	10.9		12.7	-0 39	+13.6	
26	62	9.4	9.3	9.6	+0 50	- 1.2		66	149	10.9		12.7	+0 14	+14.5	
27	65	9.5	9.3	9.7	+1 13	-19.1		67	151	10.9		12.8	+0 33	+13.8	
28	68	9.5	9.5	9.9	0 0	-17.7		68	151	10.9		12.8	+0 26	- 0.3	
29	72	9.6	9.5	10.0	+1 1	+19.1		69	153	11.0		12.9	+0 14	-14.1	
30	76	9.7	9.3	10.1	+0 34	-11.8		70	153	11.0		12.9	+0 22	- 1.2	
31	78	9.7		10.2	-0 11	-11.4		71	154	11.0		12.9	+0 5	+ 3.6	dpl.
32	82	9.8	9.4	10.3	+2 0	+25.1		72	158	11.1		13.0	+0 39	- 8.1	
33	87	9.8	9.5	10.5	-1 47	-27.6		73	163	11.1		13.2	+0 39	- 6.9	
34	88	9.9	9.5	10.5	+1 39	+22.8		74	176	11.4		13.7	+0 12	+ 0.3	
35	88	9.9	9.5	10.5	+0 48	+ 6.9		75	178	11.4		13.7	-0 10	- 1.8	
36	93	9.9	9.5	10.7	-1 44	+16.9		76	178	11.4		13.7	0 0	+ 2.0	
37	94	10.0	9.5	10.7	-1 56	- 3.9		77	179	11.4		13.8	-0 11	- 3.1	
38	94	10.0	9.5	10.7	-0 51	+27.6									
39	96	10.0		10.8	+0 46	+11.8									
40	97	10.0		10.8	-0 22	+ 0.2									

$$M = 9.0 + 0.017 (G - 37.4).$$

3264

## W Cancri

 $9^{\text{h}} 1^{\text{m}} 24^{\text{s}}$  (1855.0)  $+25^{\circ} 50'.1$ Max. =  $2410 153^{\text{d}}$  (3 Sept. 1886)  $+ 384^{\text{d}}$  E.

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1			$7^{\text{M}}.3$	$6^{\text{M}}.8$	$-2^{\text{m}} 0^{\text{s}}$	$+22'.3$	PD. $7^{\text{M}}.26$ GW	16	76	$10^{\text{M}}.1$		$11^{\text{M}}.1$	$+1^{\text{m}} 52^{\text{s}}$	$-17'.2$	
2	0	$8^{\text{M}}.3$	8.5	7.7	$+1 29$	$+10.6$		17	81	10.3		11.3	$-0 9$	$+ 9.0$	
3	10	8.6	8.5	8.2	$-0 32$	$+35.0$		18	91	10.5		11.7	$+0 37$	$+11.5$	
4	21	8.8	8.7	8.7	$-2 8$	$-26.3$		19	98	10.7		11.9	$-1 9$	$-11.3$	
5	23	8.9	9.0	8.8	$+1 43$	$+10.9$		20	102	10.8		12.1	$+0 17$	$-11.2$	
6	30	9.0	9.3	9.1	$-1 14$	$-23.6$		21	104	10.8		12.1	$-1 2$	$- 2.2$	
7	33	9.1	9.0	9.3	$+2 3$	$-10.9$		22	106	10.9		12.2	$+0 6$	$+13.5$	
8	41	9.3	9.3	9.6	$+2 10$	$- 0.4$		23	113	11.0		12.4	$+0 1$	$- 2.1$	
9	44	9.4	9.1	9.8	$+1 25$	$+17.4$		24	119	11.2		12.6	$+0 4$	$+ 2.9$	
10	50	9.5		10.0	$+1 4$	$+26.0$		25	120	11.2		12.7	$-0 36$	$-11.7$	
11	62	9.8		10.5	$+1 8$	$-24.5$	*	26	130	11.4		13.0	$-0 32$	$- 5.1$	
12	63	9.8		10.6	$+0 27$	$+ 5.7$		27	133	11.5		13.1	$+0 20$	$- 6.7$	
13	66	9.9		10.7	$+0 48$	$+16.5$		28	137	11.6		13.2	$+0 19$	$+10.0$	
14	68	10.0		10.8	$+1 11$	$-27.2$	*	29	143	11.8		13.2	$+0 36$	$- 3.7$	
15	75	10.1		11.1	$+0 53$	$- 5.9$		30	155	12.0		13.6	$-0 6$	$- 1.1$	

\* (11 + 14) = BD.  $+ 25^{\circ} 20' 55''$ ,  $9^{\text{M}}.5$ .

$$M = 8.9 + 0.024 (G - 24.2).$$

3425

## X Hydrae

 $9^h 28^m 35^s$  (1855.0)  $-14^\circ 2'.8$ Max. = 2413 657<sup>d</sup> (7 Apr. 1896) + 305<sup>d</sup> E.

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1	0	8 <sup>M</sup> .2	8 <sup>M</sup> .0	7 <sup>M</sup> .9	+1 <sup>m</sup> 48 <sup>s</sup>	- 9'.5		26	126	10 <sup>M</sup> .2		10 <sup>M</sup> .9	-0 <sup>m</sup> 9 <sup>s</sup>	+11'.3	
2	21	8.5	8.6	8.5	+0 32	-21.8		27	130	10.3	10 <sup>M</sup>	11.0	+1 22	+26.0	
3	31	8.7	9.0	8.7	+0 43	+12.6		28	137	10.4	9.8	11.1	+1 42	- 6.6	
4	32	8.7	8.5	8.8	+0 42	- 7.0		29	143	10.5	10	11.3	+1 0	- 3.3	
5	35	8.8	9.1	8.8	-1 48	+18.5		30	149	10.6		11.4	-0 20	- 5.7	*
6	42	8.9	9.0	9.0	-0 57	-20.9		31	149	10.6		11.4	-0 35	-15.8	
7	54	9.1	9.1	9.3	+1 14	+ 3.0		32	152	10.6		11.4	+0 32	+14.4	
8	57	9.1	9.4	9.4	-0 51	+17.6		33	156	10.7		11.5	+1 7	- 9.4	
9	59	9.1	9.2	9.4	+1 0	+15.7		34	163	10.8		11.6	+0 46	+ 5.1	
10	63	9.2	9.6	9.5	+1 17	+10.2		35	165	10.8		11.7	-0 54	- 8.9	
11	68	9.3	9.3	9.6	+1 2	+12.2		36	185	11.2		12.0	+0 43	+ 7.0	
12	72	9.3	9.2	9.7	+0 5	- 6.7		37	194	11.3		12.2	-0 3	-10.1	
13	79	9.5	9.5	9.9	+0 51	+ 8.6		38	200	11.4		12.3	+0 38	- 7.8	
14	80	9.5	9.4	9.9	-1 42	- 1.9		39	201	11.4		12.3	+0 36	- 8.8	
15	84	9.5	9.6	10.0	-1 10	- 0.3		40	201	11.4		12.8	-0 31	+14.4	
16	89	9.6	9.8	10.1	-1 20	+ 1.2		41	209	11.5		12.5	-0 39	+ 5.4	
17	93	9.7	9.4	10.2	+1 18	+ 8.6		42	212	11.6		12.5	+0 20	+11.4	
18	103	9.8	9.6	10.4	+0 22	+24.0		43	221	11.7		12.7	+0 16	+ 2.7	
19	106	9.9	10	10.5	-1 21	+12.7		44	225	11.8		12.8	+0 28	- 5.5	
20	109	9.9	9.8	10.6	+1 46	-11.7		45	227	11.8		12.8	+0 9	+ 1.9	
21	114	10.0	10 <sup>M</sup>	10.7	-0 45	+20.8		46	241	12.1		13.0	-0 17	- 0.2	
22	117	10.1		10.7	-0 42	+21.9		47	246	12.1		13.1	-0 3	- 0.7	
23	119	10.1		10.8	-1 36	+ 3.6									
24	122	10.1		10.8	+0 34	+18.5									
25	125	10.2		10.9	-0 24	- 6.4	*								

\* (25 + 30) = BD. - 14<sup>h</sup> 28<sup>m</sup> 90<sup>s</sup>, 10<sup>M</sup>.

$$M = 9.4 + 0.016 (G - 75.2).$$

4471

## T Canum Venaticorum\*

 $12^{\text{h}} 23^{\text{m}} 1^{\text{s}}$  (1855.0)  $+32^{\circ} 18'.3$ Max. =  $2\,414\,048^{\text{d}}$  (3 Maii 1897)  $+287^{\text{d}}$  E.

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1	0	7 <sup>M</sup> .5	7 <sup>M</sup> .4	7 <sup>M</sup> .2	+0 <sup>m</sup> 48 <sup>s</sup>	-5'.0	PD. 7 <sup>M</sup> .72 GW	14	76	9 <sup>M</sup> .5	9 <sup>M</sup> .3	10 <sup>M</sup> .6	-1 <sup>m</sup> 51 <sup>s</sup>	-23'.9	
2	12	7.8	7.9	7.7	-1 6	-6.4		15	78	9.6	9.5	10.7	-1 24	+25.1	
3	25	8.2	8.2	8.2	+3 56	+31.1		16	86	9.8		11.1	+0 43	-12.8	
4	45	8.7	8.7	9.1	+0 5	-30.6		17	90	9.9		11.3	+1 24	+2.9	
5	46	8.7	8.6	9.1	+3 12	-24.4		18	97	10.1		11.7	+0 11	-15.0	
6	56	9.0		9.6	+3 11	+32.1	**	19	100	10.2		11.8	+0 58	+3.6	
7	57	9.0	9.1	9.6	+1 24	+30.9		20	105	10.3		12.1	+0 10	+4.4	
8	58	9.1		9.7	+3 11	+32.4	**	21	112	10.5		12.5	-0 44	-2.3	
9	61	9.1	9.3	9.7	-1 42	+10.2		22	117	10.7		12.8	-0 46	+10.8	
10	63	9.2	9.2	9.9	+1 28	-29.3		23	126	10.9		13.3	+0 38	+0.6	
11	66	9.3	9.1	10.1	+0 18	-26.8		24	135	11.1		13.8	-0 51	-12.3	
12	67	9.3	9.3	10.1	-1 47	+25.7							+1 4	-2.5	***
13	68	9.3	9.4	10.2	+1 0	-11.7									

\* Regio huius chartae nebulosa apparet

\*\* (6 + 8) = BD.  $+32^{\circ} 22'55.8^{\text{M}}.4$ , =  $\Sigma 1653$ , HP. 8<sup>M</sup>.8\*\*\* 10<sup>M</sup>.2, 28 Martii 1901; a 3 Junii 1901 non amplius visa.

$$M = 8.7 + 0.027 (G - 44.7).$$

4573

RU Virginis\*

12<sup>h</sup> 39<sup>m</sup> 56<sup>s</sup> (1855.0) +4° 56'.5

Max. = 2 413 314<sup>d</sup> (30 April. 1895) + 440<sup>d</sup> E.

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1			6 <sup>M</sup> .7	6 <sup>M</sup> .7	+0 <sup>m</sup> 32 <sup>s</sup>	-34'.6	{ 35 Virginis PD. 6 <sup>M</sup> .56 G	16	56	10 <sup>M</sup> .0	9 <sup>M</sup> .5	11 <sup>M</sup> .1	+1 <sup>m</sup> 49 <sup>s</sup>	- 7'.1	
2	0	8 <sup>M</sup> .2	8.3	8.0	+0 45	-41.6		17	59	10.1	9.5	11.3	+0 53	-23.2	
3	9	8.5	8.4	8.5	-1 58	-37.4		18	59	10.1		11.3	+0 48	-11.4	
4	17	8.7	8.3	8.9	+2 17	-19.8		19	62	10.2		11.5	+0 15	+10.5	
5	20	8.8		9.1	+2 17	-19.5		20	66	10.3		11.7	-0 24	-14.8	
6	22	8.9	8.8	9.2	-1 49	- 8.8		21	70	10.4		11.9	-0 53	-14.9	
7	27	9.0	9.0	9.5	-1 55	+13.1		22	72	10.5		12.0	+0 57	+ 2.3	
8	30	9.1	9.3	9.7	+2 2	+ 4.2		23	76	10.6		12.2	-0 31	- 8.1	
9	32	9.2	9.2	9.8	+0 56	- 2.1		24	77	10.6		12.3	-1 1	+12.3	
10	35	9.3	9.3	9.9	-1 33	-23.1		25	82	10.8		12.6	-1 1	+12.0	
11	38	9.4	9.5	10.1	-1 52	+18.2		26	87	11.0		12.8	-0 17	-12.6	
12	42	9.5	9.5	10.3	-0 38	-17.7		27	89	11.0		12.9	-0 26	+12.6	
13	44	9.6	9.5	10.5	-0 25	+ 0.8		28	93	11.1		13.1	-0 2	- 3.6	
14	46	9.6	9.5	10.6	-1 17	+ 8.8		29	95	11.2		13.2	+0 7	- 0.1	
15	49	9.7	9.5	10.7	-0 17	+ 0.6		30	102	11.4		13.6	-0 41	+ 6.6	

\* Regio huius chartae nebulosa apparet.

$M = 8.8 + 0.032 (G - 19.6).$

5174

## RS Virginis

 $14^{\text{h}} 20^{\text{m}} 1^{\text{s}}$  (1855.0) +  $5^{\circ} 19'.9$ Max. =  $2\,411\,510^{\text{d}}$  (22 Maii 1890) +  $355^{\text{d}}$  E.

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1	0	8 <sup>M</sup> .0	7 <sup>M</sup> .8	7 <sup>M</sup> .6	-1 <sup>m</sup> 21 <sup>s</sup>	+10'.9		14	94	10 <sup>M</sup> .3		11 <sup>M</sup> .3	-1 <sup>m</sup> 11 <sup>s</sup>	-21'.7	
2	6	8.1	8.0	7.8	-4 15	-23.6		15	96	10.4		11.4	-0 34	-16.2	
3	15	8.4	8.5	8.1	+1 24	+32.6		16	104	10.6		11.8	+0 15	+ 0.7	
4	18	8.4	8.4	8.2	0 0	+35.6		17	110	10.7		12.1	-0 39	- 8.9	
5	21	8.5	8.5	8.3	+0 41	-27.6		18	114	10.8		12.3	+0 29	- 6.2	
6	60	9.5	9.5	9.9	+2 6	-19.9		19	117	10.9		12.4	+0 18	+12.7	
7	69	9.7	9.5	10.2	-0 27	-22.0		20	119	10.9		12.5	-1 10	-11.1	
8	71	9.7	9.5	10.3	+1 33	-16.3		21	130	11.2		13.1	+0 6	- 8.4	
9	77	9.9	9.5	10.5	+1 27	-21.4		22	130	11.2		13.1	-0 8	+ 4.2	
10	80	10.0	9.5	10.7	+0 45	+26.1		23	135	11.3		13.4	-0 21	- 3.7	
11	83	10.0		10.8	-0 50	+ 8.2		24	135	11.3		13.4	-0 3	+ 9.0	
12	85	10.1	9.5	10.9	+1 6	-21.3		25	137	11.4		13.5	-0 17	- 1.5	
13	90	10.2		11.1	+0 12	+12.2									

$$M = 8.5 + 0.025 (G - 21).$$

5405

## RT Librae

 $14^{\text{h}} 58^{\text{m}} 14^{\text{s}}$  (1855.0)  $-18^{\circ} 10'.0$ Max. = 2 413 035<sup>d</sup> (25 Iulii 1894) + 252<sup>d</sup> E.

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1			7 <sup>M</sup> .5	7 <sup>M</sup> .9	-0 <sup>m</sup> 13 <sup>s</sup>	-38'.6		19	68	10 <sup>M</sup> .1	10 <sup>M</sup>	11 <sup>M</sup> .1	-1 <sup>m</sup> 9 <sup>s</sup>	-11'.7	
2	0	8 <sup>M</sup> .5	8.7	8.6	+2 10	-29.9		20	71	10.2	10	11.3	-1 14	+ 5.8	
3	3	8.6	8.6	8.7	+0 26	+38.1		21	73	10.2		11.4	-0 51	+ 0.7	
4	5	8.6	8.9	8.8	-0 12	-34.6		22	73	10.2		11.4	-0 49	-12.6	
5	9	8.7	8.7	9.0	-1 6	+ 6.5		23	84	10.5		11.8	+0 24	- 1.2	
6	9	8.7	8.9	9.0	-0 5	-21.9		24	88	10.6		12.0	-0 44	- 0.7	
7	14	8.8	9.0	9.1	-1 31	+ 8.8		25	90	10.6		12.1	+0 14	+ 6.3	
8	28	9.2	9.5	9.6	-1 1	- 6.8		26	93	10.7		12.3	-0 26	+15.3	
9	30	9.2	9.5	9.7	+2 4	+15.5		27	100	10.8		12.6	-0 20	-11.4	
10	35	9.3	9.3	9.9	+1 39	+19.8		28	100	10.8		12.6	-0 25	+ 6.3	
11	38	9.4	9.5	10.0	+0 38	- 4.8		29	104	10.9		12.8	-0 32	+15.2	
12	41	9.5	9.8	10.1	+1 39	-17.8		30	105	10.9		12.9	+0 46	-12.4	
13	54	9.8	9.8	10.6	+1 33	-17.6		31	107	11.0		13.0	-0 9	- 5.6	
14	55	9.8	9.6	10.6	-1 18	+21.8		32	107	11.0		13.0	+0 17	-11.7	
15	55	9.8	10	10.6	-1 56	-29.3		33	112	11.1		13.2	-0 1	- 6.0	
16	58	9.9	9.7	10.7	-1 3	-19.6		34	114	11.1		13.4	+0 13	- 2.8	
17	62	10.0	9.8	10.9	-1 39	- 3.1									
18	65	10.0	9.8	11.0	+0 33	+ 3.9									

$$M = 9.3 + 0.023 (G - 33.6).$$

5511

## RS Librae

 $15^{\text{h}} 15^{\text{m}} 52^{\text{s}}$  (1855.0)  $-22^{\circ} 23'.5$ Max. =  $2410102^{\text{d}}$  (14 Julii 1886)  $+219^{\text{d}}$  E.

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1	0	8 <sup>M</sup> .4	8 <sup>M</sup> .5	7 <sup>M</sup> .7	+ 2 <sup>m</sup> 26 <sup>s</sup>	+23'.9		26	48	10 <sup>M</sup> .1		11 <sup>M</sup> .0	-0 <sup>m</sup> 11 <sup>s</sup>	+24'.2	CoD. 9 <sup>M</sup> .8
2	2	8.5	8.5	7.9	+ 0 33	-27.0	CoD. 8 <sup>M</sup> .0	27	49	10.1		11.0	-1 58	+11.3	" 10
3	5	8.6	8.5	8.0	- 1 36	+ 0.8	" 8.0	28	51	10.2		11.1	-0 26	- 6.7	" 10
4	7	8.7	8.8	8.3	- 0 8	+11.3	" 8.5	29	52	10.2		11.2	-0 4	-27.2	" 9.8
5	9	8.7	8.5	8.5	- 1 56	- 3.7	" 8.3	30	53	10.2	9 <sup>M</sup> .8	11.2	+1 48	- 7.4	" 9.8
6	13	8.9	8.8	8.8	- 0 25	+33.5		31	55	10.3		11.3	+1 5	-14.1	" 9.9
7	14	8.9	9.0	8.9	+ 1 4	-24.6	" 8.7	32	56	10.3		11.4	+1 54	-10.8	" 9.9
8	16	9.0	9.0	9.0	+ 0 36	+ 0.3	" 8.6	33	59	10.4		11.5	+0 1	-23.9	" 10
9	19	9.1	9.1	9.3	- 1 52	+20.8	" 9.1	34	59	10.4		11.5	+1 11	-12.8	" 10
10	22	9.2	9.3	9.5	- 1 46	-30.7	" 9.1	35	61	10.5		11.6	+1 8	-18.7	" 9.8
11	24	9.2	9.4	9.6	- 0 59	+31.1		36	64	10.6		11.8	+0 43	+ 2.9	
12	26	9.3	9.2	9.8	- 1 20	-31.0	" 9.4	37	67	10.7		12.0	+1 22	- 2.9	" 10
13	28	9.4	9.3	9.9	- 1 35	-11.4	" 9.2	38	69	10.8		12.1	+1 0	+ 4.5	
14	33	9.6	9.5	10.2	- 1 41	- 0.7	" 9.5	39	70	10.8		12.2	-0 29	- 8.9	
15	33	9.6	9.4	10.2	+ 1 15	+ 8.4	" 9.6	40	70	10.8		12.2	+0 44	- 3.1	" 10
16	34	9.6	9.5	10.3	+ 2 0	-29.1	" 9.3	41	73	10.9		12.4	-0 50	- 3.0	
17	37	9.7	9.8	10.5	- 1 30	+ 6.0	" 9.5	42	74	10.9		12.5	+1 31	+ 2.2	" 10 dpl.
18	38	9.7	9.8	10.5	+ 0 43	+12.8	" 9.6	43	76	11.0		12.6	-0 43	+ 6.0	
19	39	9.8		10.6	+ 1 24	+12.9	" 9.7	44	77	11.1		12.7	-0 33	-12.8	
20	40	9.8		10.6	- 0 21	- 9.0	" 10	45	79	11.1		12.9	-0 11	-13.8	
21	40	9.8		10.6	+ 0 46	+ 9.7	" 9.7	46	81	11.2		13.1	-0 33	+ 6.3	
22	42	9.9		10.7	- 1 47	+ 5.7	" 9.9	47	81	11.2		13.1	+1 4	-10.2	" 10 dpl.
23	45	10.0		10.9	+ 1 5	+ 6.0	" 10	48	82	11.2		13.2	-0 11	+ 1.2	
24	45	10.0		10.9	+ 1 20	+18.4	" 10								
25	47	10.0		10.9	- 1 0	+ 7.2	" 10								

$$M = 9.3 + 0.034 (G - 25.5).$$



5566

## RU Librae

 $15^{\text{h}} 25^{\text{m}} 10^{\text{s}}$  (1855.0)  $-14^{\circ} 50'.0$ Max. = 2 413 357<sup>d</sup> (12 Iunii 1895) + 316<sup>d</sup> E.

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1			<sup>M</sup> 4.0	<sup>M</sup> 4.0	+2 <sup>m</sup> 15 <sup>s</sup>	+32'.1	$\gamma$ Librae	23	96	10 <sup>M</sup> .5		<sup>M</sup> 11.5	+0 <sup>m</sup> 21 <sup>s</sup>	+12'.0	
2	0	8 <sup>M</sup> .1	7.9	7.6	-2 12	-30.6		24	96	10.5		11.5	-0 15	-11.5	
3	8	8.3	8.2	8.1	-3 3	-21.6		25	103	10.7		11.8	-0 38	+ 8.0	
4	13	8.4	8.7	8.4	-0 12	- 4.2		26	104	10.7		11.8	+0 17	-11.4	
5	15	8.5	8.3	8.5	+0 50	+27.5		27	108	10.8		11.9	+1 2	- 3.4	
6	20	8.6	8.6	8.7	-0 38	-17.4		28	115	11.0		12.1	+0 43	- 9.3	
7	23	8.7	8.6	8.8	+0 27	+24.2		29	120	11.1		12.2	-0 8	+ 5.9	
8	31	8.9	9.4	9.2	-0 59	+19.3		30	125	11.2		12.4	+0 21	-11.3	
9	33	8.9	9.1	9.3	-1 59	-26.4		31	128	11.3		12.5	+0 14	+ 7.9	
10	42	9.1	9.3	9.6	+0 36	-20.5		32	131	11.4		12.6	+0 37	+14.7	
11	45	9.2	9.2	9.8	+1 2	- 8.8		33	135	11.5		12.7	-0 36	+ 0.2	
12	52	9.4	9.4	10.0	-1 56	+ 5.3		34	139	11.6		12.7	+0 21	+ 5.6	
13	56	9.5	9.5	10.2	+0 42	+12.7		35	140	11.6		12.8	+1 2	- 8.4	
14	62	9.6	9.5	10.4	-1 22	+14.4		36	142	11.6		12.8	+0 51	- 3.3	
15	63	9.7	9.6	10.4	-1 13	+ 9.3		37	143	11.7		12.8	-0 42	+ 6.7	
16	64	9.7		10.5	-0 55	- 2.1		38	148	11.8		12.9	+0 27	+11.4	
17	70	9.8		10.6	-1 2	+12.7		39	150	11.8		13.0	+0 55	- 0.6	
18	71	9.9		10.7	-0 2	-11.8		40	162	12.1		13.3	-0 9	+14.9	
19	75	10.0		10.8	+0 28	-10.9		41	165	12.2		13.3	-0 40	- 9.6	
20	85	10.2	9.8	11.1	+1 28	- 7.9		42	169	12.3		13.4	+0 50	+11.1	
21	88	10.3		11.2	+1 7	-13.8		43	181	12.6		13.6	-0 30	+ 5.7	
22	91	10.4	10	11.4	+1 41	-10.0									

$$M = 9.2 + 0.025 (G - 44.2).$$

5688

## R Librae

 $15^{\text{h}} 45^{\text{m}} 24^{\text{s}}$  (1855.0)  $-15^{\circ} 48'.1$ Max. = 2 399 791<sup>d</sup> (21 Aprilis 1858) + 242<sup>d</sup>.5 E.

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1			4 <sup>M</sup> .8	4 <sup>M</sup> .3	+0 <sup>m</sup> 12 <sup>s</sup>	-29'.9	0 Librae	16	107	10 <sup>M</sup> .7		11 <sup>M</sup> .7	+0 <sup>m</sup> 36 <sup>s</sup>	+14'.7	
2	0	8 <sup>M</sup> .6	9.1	8.5	+1 24	- 7.6		17	113	10.8		11.9	-0 38	+ 5.5	
3	19	9.0	9.0	9.3	-1 49	+19.7		18	116	10.8		12.0	-0 9	+ 3.1	
4	33	9.3	9.3	9.7	-0 17	+30.2		19	119	10.9		12.1	-0 59	- 3.1	
5	37	9.3	9.4	9.9	-0 29	-19.7		20	122	10.9		12.2	+0 36	+11.9	
6	39	9.4	9.3	9.9	-0 59	-12.4		21	124	11.0		12.2	+0 54	+14.4	
7	48	9.5	9.8	10.2	+0 46	+20.2		22	127	11.0		12.3	-0 4	- 2.2	
8	50	9.6	9.4	10.3	+1 25	- 5.3		23	129	11.1		12.4	-1 5	0.0	
9	55	9.7	9.4	10.4	-0 47	-26.7		24	129	11.1		12.4	-0 52	+ 5.3	
10	57	9.7	9.6	10.4	-1 28	+18.5		25	134	11.2		12.6	-0 15	- 3.7	
11	59	9.7	9.5	10.5	-0 52	+14.1		26	136	11.2		12.7	+0 6	- 5.9	
12	70	10.0		10.8	-0 20	-13.8		27	137	11.2		12.7	-0 6	+ 2.6	
13	74	10.0		10.9	+0 55	-14.4		28	142	11.3		12.9	-0 42	- 6.3	
14	91	10.4		11.3	-0 58	- 7.9		29	148	11.4		13.1	-0 13	- 3.7	
15	100	10.5		11.6	-0 30	- 9.8		30	154	11.6		13.4	-0 5	+ 3.2	

$$M = 9.4 + 0.019 (G - 40.8).$$

5775

## U Serpentis

 $16^{\text{h}} 0^{\text{m}} 23^{\text{s}}$  (1855.0)  $+ 10^{\circ} 19'.4$ Max. =  $2\,410\,176^{\text{d}}$  (26 Septemb. 1886)  $+ 240^{\text{d}}$  E.

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1			$6^{\text{M}}.2$	$5^{\text{M}}.6$	$+0^{\text{m}}20^{\text{s}}$	$- 2'.5$	PD. $5^{\text{M}}.96$ GW, 45 Serp.	21	100	$10^{\text{M}}.6$		$11^{\text{M}}.3$	$+0^{\text{m}}22^{\text{s}}$	$+ 7'.8$	
2	0	$7^{\text{M}}.4$	7.3	6.8	$+0\ 49$	$+ 8.9$	„ 7.08 W, 46 „	22	102	10.6		$11.4$	$-0\ 26$	$+11.3$	
3	4	7.5	7.5	7.0	$-1\ 25$	$+ 0.6$	„ 7.27 W, *	23	105	10.7		$11.6$	$+0\ 41$	$-10.2$	
4	18	8.0	8.0	7.6	$-2\ 29$	$-17.2$		24	110	10.9		$11.8$	$-0\ 36$	$+ 1.8$	
5	30	8.3	8.5	8.1	$+2\ 27$	$+30.5$		25	113	11.0		$11.9$	$+0\ 20$	$- 6.1$	
6	50	9.0	9.4	9.0	$-1\ 37$	$+ 1.1$		26	113	11.0		$11.9$	$+0\ 14$	$- 3.6$	
7	51	9.0	9.3	9.1	$+1\ 46$	$-17.9$		27	119	11.2		$12.2$	$+0\ 47$	$- 1.8$	
8	55	9.1	9.1	9.2	$+0\ 15$	$+23.0$		28	121	11.3		$12.3$	$-0\ 25$	$+ 9.6$	
9	58	9.2	9.1	9.4	$+1\ 8$	$+ 1.8$		29	125	11.4		$12.5$	$-0\ 13$	$+11.1$	
10	59	9.3	9.2	9.4	$+2\ 21$	$+18.0$		30	129	11.5		$12.7$	$+0\ 8$	$+11.2$	
11	63	9.4	9.3	9.6	$-0\ 8$	$-24.5$		31	134	11.7		$13.0$	$+0\ 6$	$+ 5.7$	
12	67	9.5		9.8	$-1\ 4$	$+ 7.8$		32	138	11.8		$13.2$	$+0\ 32$	$- 0.6$	
13	72	9.7		10.0	$+0\ 11$	$+17.1$		33	138	11.8		$13.2$	$+0\ 37$	$+ 8.0$	
14	74	9.7		10.1	$+1\ 9$	$-23.5$		34	140	11.9		$13.3$	$+0\ 37$	$+15.6$	
15	75	9.8		10.1	$-1\ 5$	$+15.3$		35	140	11.9		$13.3$	$+0\ 28$	$+14.1$	
16	78	9.9		10.3	$+0\ 41$	$-18.6$		36	140	11.9		$13.3$	$+0\ 25$	$- 9.3$	
17	79	9.9	9.4	10.4	$+1\ 17$	$+ 3.9$		37	142	11.9		$13.4$	$+0\ 26$	$-12.3$	
18	90	10.3		10.9	$+0\ 2$	$-12.2$		38	147	12.1		$13.6$	$+0\ 45$	$- 0.2$	
19	99	10.5	9.5	11.3	$+0\ 9$	$-23.0$		39	152	12.2		$13.9$	$-0\ 53$	$- 0.1$	
20	99	10.5		11.3	$+0\ 34$	$+ 2.1$									

\* A. G. C. Leipzig I 5598: magnitudo  $8^{\text{M}}.0$ ,  $8^{\text{M}}.2$ .

$$M = 8.7 + 0.032 (G - 41.3).$$

5796a

## RU Herculis

 $16^{\text{h}} 4^{\text{m}} 10^{\text{s}}$  (1855.0)  $+25^{\circ} 27'.1$ Max. = 2 414 355<sup>d</sup> (6 Martii 1898)  $+482^{\text{d}}$  E.

Num.	Grad.	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Grad.	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1			7 <sup>M</sup> .1	7 <sup>M</sup> .5	-0 <sup>m</sup> 7 <sup>s</sup>	+24'.8	PD. 7 <sup>M</sup> .72 GW—	21	52	10 <sup>M</sup> .4		11 <sup>M</sup> .5	-1 <sup>m</sup> 5 <sup>s</sup>	+9'.1	B. n. 12
2	0	8 <sup>M</sup> .3	8.3	8.3	-2 48	-9.3	P. 8.9 u*	22	53	10.4		11.6	-0 17	-3.2	" 13
3	4	8.5	8.5	8.6	+1 9	-6.3	" 8.7 a, B. n. 29**	23	54	10.5		11.6	-1 6	+8.0	" 11
4	10	8.7	8.4	8.9	-1 22	-8.3	" 8.9 t, " 10	24	54	10.5		11.6	+1 8	+10.1	" 28
5	12	8.8	8.8	9.0	+1 13	+20.9	" 9.4 s, " 30	25	55	10.5		11.7	+0 24	+6.9	P. 11 <sup>M</sup> .5 e, " 21
6	15	8.9	9.0	9.2	+1 38	+9.7	" 9.7 b, " 31	26	58	10.6		11.9	+0 9	-12.7	" 18
7	18	9.0	9.2	9.4	+1 11	-26.0		27	61	10.8		12.1	+0 27	-13.4	" 22
8	23	9.2	9.3	9.8	-0 19	-39.5		28	64	10.9		12.2	+0 46	-15.1	dpl. " 25
9	27	9.4	9.5	10.0	-0 42	+26.6	" 10.3 z	29	66	11.0		12.3	+0 14	+3.6	" 12.2 h, " 19
10	29	9.5	9.5	10.1	-1 52	-15.1	" 2	30	66	11.0		12.3	-0 4	+6.3	" 11.8 f, " 15
11	30	9.5	9.4	10.2	+0 57	-21.8		31	73	11.2		12.7	+0 43	+0.7	" 24
12	33	9.6	9.5	10.4	+0 17	+23.0	" 10.7 x	32	75	11.3		12.8	+0 7	-0.6	" 12.1 g
13	36	9.8	9.5	10.6	+1 31	-26.9		33	80	11.5		13.1	-0 51	+4.2	
14	38	9.8		10.7	+0 35	+12.9	" 11.2 d, " 23	34	83	11.6		13.2	+0 4	-3.6	" 12.5 m
15	41	10.0	9.5	10.9	-0 7	-20.9	" 10.9 w	35	90	11.9		13.6	+0 2	-3.1	" 12.9 n
16	41	10.0		10.9	+0 20	+11.4	" 11.1 c, " 20						-0 13	-5.3	" 13.6 p
17	45	10.1	9.5	11.1	+1 18	-27.6							-0 15	0.0	" 14.8 w'
18	47	10.2		11.2	+0 2	-7.9	" 11.4 q, " 17						-0 7	-0.2	" 15.4 t'
19	50	10.3		11.4	-0 6	-9.0	" 14								
20	50	10.3		11.4	+0 56	+8.6	" 26								

\* Parkhurst, Researches in Stell. Photom. 1906, p. 74, Tab. 45 (magnitudes et litterae).

\*\* Bellamy, Monthly Notices, vol. LXII pp. 74—75, Tab. I (numeri).

$$M = 8.9 + 0.040 (G - 14.3).$$

5856

## W Ophiuchi

 $16^{\text{h}} 13^{\text{m}} 36^{\text{s}}$  (1855.0) —  $7^{\circ} 21'.0$ Max. = 2 408 276<sup>d</sup> (14 Iulii 1881) + 329<sup>d</sup> 8 E.

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1	0	(8 <sup>M</sup> .1)	7 <sup>M</sup> .3	7 <sup>M</sup> .7	+1 <sup>m</sup> 36 <sup>s</sup>	+29'.3	dpl.	23	109	10 <sup>M</sup> .5	12 <sup>M</sup> .2	+0 <sup>m</sup> 8 <sup>s</sup>	-15'.8		
2	30	8.7	8.9	9.2	+1 34	- 2.1		24	109	10.5	12.2	+0 37	+ 5.9		
3	36	8.9	8.9	9.6	+0 34	+33.6		25	116	10.6	12.3	-0 10	-12.6		
4	43	9.0	8.9	9.9	+1 27	+19.9		26	119	10.7	12.4	-0 54	+ 3.2		
5	51	9.2	9.2	10.3	+0 48	+ 4.0		27	120	10.7	12.4	+0 5	- 1.2		
6	55	9.3	9.2	10.4	-0 46	-23.5		28	125	10.8	12.5	+0 13	- 3.0		
7	59	9.4	9.4	10.6	+0 44	-14.4		29	131	11.0	12.7	+0 59	+ 0.1		
8	63	9.5	9.5	10.8	-1 38	+25.7		30	135	11.1	12.7	+0 48	+ 0.6		
9	70	9.6	9.6	11.0	-1 20	+ 2.3		31	140	11.2	12.8	+0 38	- 2.2		
10	73	9.7		11.1	-0 51	-23.8		32	144	11.2	12.9	+0 11	+ 6.0		
11	75	9.7	10	11.2	-0 37	-21.8		33	147	11.3	13.0	-0 1	+13.5		
12	76	9.8	9.5	11.2	+0 8	-23.5		34	148	11.3	13.0	-0 4	+12.6		
13	76	9.8	9.6	11.2	+0 28	+27.6		35	148	11.3	13.0	-0 4	+12.3		
14	78	9.8	10	11.3	-0 52	-13.0		36	150	11.4	13.0	+0 51	- 4.8		
15	79	9.8	10	11.4	-0 23	-21.7		37	153	11.4	13.1	+0 35	- 0.9		
16	80	9.8	9.9	11.4	+0 40	-17.5		38	154	11.5	13.1	+0 8	+ 8.8		
17	83	9.9	10	11.5	+0 45	+23.1		39	161	11.6	13.2	-0 23	+ 5.2		
18	86	10.0	10	11.6	0 0	+26.6		40	165	11.7	13.3	-0 13	- 2.5		
19	88	10.0	10	11.7	+0 40	-23.2		41	171	11.8	13.4	+0 49	- 3.0		
20	94	10.1		11.8	-0 29	+22.0		42	179	12.0	13.5	+0 47	- 3.0		
21	98	10.2		11.9	-0 9	+ 2.2									
22	105	10.4		12.1	+0 15	- 4.2									

$$M = 9.4 + 0.022 (G - 60.0).$$

5903

## Y Scorpui

 $16^{\text{h}} 20^{\text{m}} 59^{\text{s}}$  (1855.0) —  $19^{\circ} 1'.4^*$ Max. =  $2\,407\,847^{\text{d}}$  (11 Maii 1880) +  $349^{\text{d}}$  E.

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1			$8^{\text{M}}.0$		$+0^{\text{m}}17^{\text{s}}$	$+40'.3$		11	43	$10^{\text{M}}.6$		$13^{\text{M}}.1$	$-0^{\text{m}}23^{\text{s}}$	$+7'.3$	
2			8.8		-2 45	$+13.4$		12	43	10.6		13.1	-0 46	$+8.8$	
3	0	$9^{\text{M}}.3$	9.3	$11^{\text{M}}.0$	-0 48	$+2.8$		13	46	10.7		13.3	+1 5	$+4.3$	
4	3	9.4	9.7	11.2	-1 35	$-5.1$		14	49	10.8		13.4	-0 21	$+4.5$	
5	9	9.6	9.8	11.5	-1 39	$+10.5$		15	51	10.8		13.5	-0 4	$+3.0$	
6	16	9.8		11.8	+0 7	$-2.3$									
7	20	9.9	9.5	12.0	-0 1	$+25.5$									
8	21	9.9		12.1	+0 5	$+14.4$									
9	37	10.4		12.8	-0 41	$+3.6$									
10	39	10.5		12.9	+1 29	$-4.1$									

\* Locus erroneus in Chandler II et III.

$$M = 9.3 + 0.03 G?$$

5928a

## SS Herculis

 $16^{\text{h}} 25^{\text{m}} 52^{\text{s}}$  (1855.0) +  $7^{\circ} 10'.2$ Max. =  $2416951^{\text{d}}$  (15 April. 1905) +  $103^{\text{d}}9$  E.

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1	0	8 <sup>M</sup> .1	8 <sup>M</sup> .0	7 <sup>M</sup> .7	+0 <sup>m</sup> 4 <sup>s</sup>	-15'.1		18	62	10 <sup>M</sup> .1	9 <sup>M</sup> .5	10 <sup>M</sup> .8	-1 <sup>m</sup> 50 <sup>s</sup>	+ 3'.0	
2	4	8.3	8.0	7.9	-1 39	+ 2.2		19	64	10.2	9.5	10.9	-1 36	+ 0.9	
3	9	8.4	9.4	8.1	+2 6	- 0.9		20	64	10.2		10.9	+0 37	- 2.3	
4	12	8.5	8.7	8.2	+0 7	-19.1		21	68	10.3		11.2	-0 45	- 6.3	
5	18	8.7	9.0	8.6	+0 33	+14.2		22	71	10.4		11.3	-0 5	+ 3.3	
6	29	9.1	9.0	9.1	+1 6	+11.4		23	72	10.4		11.4	+0 4	+12.6	
7	35	9.2	9.5	9.4	-2 0	-28.7		24	74	10.5		11.5	+0 15	+ 2.7	
8	38	9.3	9.3	9.6	-2 6	+ 1.8		25	76	10.6		11.6	+0 41	- 6.7	
9	42	9.5	9.5	9.8	-2 14	-23.1		26	78	10.6		11.7	-0 43	-11.9	
10	44	9.5	9.5	9.9	-0 12	+26.3		27	80	10.7		11.8	+0 50	+ 6.3	
11	47	9.6	9.5	10.1	+0 15	-17.4		28	80	10.7		11.8	-0 52	+11.4	
12	49	9.7	9.4	10.2	+0 22	-29.0		29	82	10.8		11.9	-0 18	-12.7	
13	52	9.8	9.5	10.3	+0 39	-26.6		30	85	10.8		12.1	-0 37	+ 6.8	
14	52	9.8	9.5	10.3	+0 56	+10.8		31	90	11.0		12.4	+0 29	+ 4.2	
15	54	9.9	9.4	10.4	+0 25	+15.9	BD. $\Delta\delta = +14'.3$	32	93	11.1		12.5	+0 38	0.0	
16	55	9.9		10.5	-0 49	+14.4		33	96	11.2		12.7	-0 11	-12.7	
17	55	9.9	9.3	10.5	-1 26	+23.8		34	104	11.5		13.2	-0 10	- 0.8	

$$M = 9.0 + 0.032 (G - 27.3).$$

6207

## Z Ophiuchi

 $17^h 12^m 12^s$  (1855.0) +  $1^0 40'.2$ Max. =  $2412587^d$  (3 Maii 1893) +  $352^d 0$  E.

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1	0	7 <sup>M</sup> .1	6 <sup>M</sup> .8	6 <sup>M</sup> .9	-1 <sup>m</sup> 55 <sup>s</sup>	+14'.1	PD. 7 <sup>M</sup> .05 GW*	23	123	11 <sup>M</sup> .0		11 <sup>M</sup> .9	+0 <sup>m</sup> 9 <sup>s</sup>	- 4'.8	
2	5	7.3	7.2	7.1	+1 36	- 5.3	„ 7.20 GW*	24	125	11.1		12.0	+1 3	- 6.6	
3	26	7.9	7.8	8.1	+1 42	+ 2.4		25	127	11.2		12.1	+0 57	- 6.2	
4	38	8.3	8.5	8.7	-0 50	-31.0		26	131	11.3		12.2	-0 14	+ 4.9	
5	53	8.8	9.0	9.3	-2 42	+ 9.3		27	136	11.5		12.4	+0 46	- 3.3	
6	57	8.9	9.0	9.5	-2 21	+27.5		28	138	11.5		12.5	+0 7	+ 5.2	
7	63	9.1	9.3	9.8	-0 57	+28.1		29	142	11.6		12.6	-0 11	+ 5.1	
8	69	9.3	9.3	10.0	-1 24	-16.7		30	148	11.8		12.8	-0 4	+12.2	
9	74	9.5	9.3	10.2	+0 24	+ 9.3		31	150	11.9		12.8	+0 40	+11.3	
10	80	9.7	9.5	10.4	-0 18	+17.4		32	152	12.0		12.9	-0 42	- 6.0	
11	85	9.8		10.6	-0 8	+26.7	**	33	156	12.1		13.0	+0 4	- 2.1	
12	89	9.9	9.5	10.8	-1 2	-26.3		34	157	12.1		13.1	-0 23	- 0.9	
13	90	10.0		10.8	-0 11	+26.2	**	35	161	12.3		13.2	-0 7	+ 8.9	
14	94	10.1	9.5	10.9	-1 11	+12.8		36	165	12.4		13.3	-0 5	-11.8	
15	95	10.2		11.0	-1 10	+13.6		37	167	12.4		13.4	+0 20	+ 8.5	
16	96	10.2		11.0	-0 14	+20.2		38	169	12.5		13.5	+0 36	-12.8	
17	98	10.2	9.5	11.1	+0 36	+ 2.8		39	173	12.6		13.6	+0 49	-14.9	
18	100	10.3		11.1	+0 7	-11.7		40	180	12.9		13.8	+0 51	- 9.4	
19	105	10.5	9.5	11.3	+0 35	+11.1		41	183	13.0		13.9	-0 29	- 2.1	
20	110	10.6		11.5	+1 1	+12.6									
21	117	10.8		11.7	-0 13	+ 1.0									
22	118	10.9		11.8	-0 1	+ 8.8									

\* 2 &gt; \* 1 die 21 Iulii 1901.

\*\* (11 + 13) = BD. + 2° 3294, 9<sup>M</sup>.5.

$$M = 9.3 + 0.032 (G - 68.7).$$



6225

## RS Herculis

 $17^h 15^m 38^s$  (1855.0)  $+23^\circ 3'.9$ Max. =  $2413769^d$  (28 Iulii 1896)  $+220^d$  E.

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1			$5^M.8$	$5^M.7$	$+2^m25^s$	$+2'.0$	73 Herculis PD. $5^M.95$ W+	18	53	$10^M.2$	$10^M.7$	$+0^m55^s$	$-0'.3$		
2	0	$8^M.0$	7.7	7.5	+0 9	+45.9		19	57	10.4	10.9	+0 35	- 5.5		
3	11	8.5	8.3	8.2	+0 23	+14.4		20	59	10.5	11.0	-0 8	+12.0		
4	19	8.8	9.3	8.7	+1 1	-33.8		21	65	10.8	11.3	-0 41	-11.9		
5	22	8.9	9.1	8.9	-0 43	- 6.2		22	72	11.0	11.7	-0 16	+ 4.4		
6	26	9.1	9.1	9.1	+0 55	- 2.8		23	82	11.5	12.2	-0 14	- 3.0		
7	27	9.2	9.2	9.2	+1 20	+13.6		24	86	11.6	12.4	+0 28	-13.8		
8	29	9.2	9.1	9.3	-1 48	- 4.9		25	90	11.8	12.6	-0 47	- 2.2		
9	30	9.3		9.4	+1 10	-20.1		26	90	11.8	12.6	-1 4	+12.7		
10	32	9.4	9.3	9.5	+0 44	- 8.8		27	92	11.9	12.7	+1 7	+ 7.8		
11	36	9.5	9.5	9.7	-2 15	-13.2		28	94	12.0	12.8	-0 10	-12.9		
12	39	9.7	9.5	9.9	-1 49	-10.0		29	96	12.1	12.9	-0 43	+ 8.1		
13	39	9.7	9.5	9.9	+1 28	+12.0		30	97	12.1	13.0	+0 58	+ 5.1		
14	43	9.8	9.5	10.1	+1 30	+14.8		31	98	12.1	13.0	+0 36	-10.2		
15	45	9.9	9.5	10.2	-1 33	+ 0.8		32	100	12.2	13.1	-0 8	- 0.3		
16	45	9.9		10.2	+1 10	-14.5		33	104	12.4	13.3	-0 15	- 0.5		
17	48	10.0	9.5	10.4	-0 48	+15.1		34	105	12.4	13.3	+0 35	+ 1.8		

$$M = 9.1 + 0.042 (G - 25.7)$$

6624

## T Serpentis\*

18<sup>h</sup> 21<sup>m</sup> 45<sup>s</sup> (1855.0) + 6° 12'.5Max. = 2 400 912<sup>d</sup> (16 Maii 1861) + 341<sup>d</sup>.5 E.

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1			6 <sup>M</sup> .5	5 <sup>M</sup> .6	-0 <sup>m</sup> 50 <sup>s</sup>	- 5'.9	PD. 6 <sup>M</sup> .04 W	36	45	9 <sup>M</sup> .4	9 <sup>M</sup> .3	9 <sup>M</sup> .8	-1 <sup>m</sup> 17 <sup>s</sup>	+15'.1	V. 9 <sup>M</sup> .4 n. 20
2	0	8 <sup>M</sup> .1	8.1	7.5	-0 47	-32.1		37	46	9.4	9.5	9.8	-1 46	- 0.9	
3	4	8.2	8.5	7.7	-0 25	+32.2	V. 8.2 n. 47 **	38	46	9.4	9.5	9.8	-0 5	- 8.1	
4	8	8.3	8.4	7.0	-1 55	+ 8.0	„ 8.4 n. 1	39	46	9.4	9.5	9.8	-1 3	+26.0	„ 9.2 n. 44
5	14	8.5	8.6	8.2	-1 42	-13.4		40	47	9.5	9.2	9.9	-1 35	+11.3	„ 9.3 n. 10
6	17	8.6	8.6	8.3	-1 43	+14.9	„ 8.6 n. 13	41	49	9.5	9.5	10.0	-1 22	+ 6.6	„ 9.6 n. 6
7	18	8.6	8.0	8.4	+1 1	+27.4		42	50	9.5	9.5	10.0	-0 42	+24.5	„ 9.7 n. 49
8	20	8.7	8.7	8.5	-0 54	+18.2	„ 8.6 n. 37	43	50	9.5	9.4	10.0	-0 34	+12.9	„ 9.8 n. 39
9	20	8.7	8.5	8.5	-1 34	+14.0	„ 8.5 n. 12	44	51	9.6	9.5	10.1	-1 54	+ 3.3	„ 9.7 n. 29
10	22	8.7	8.6	8.6	-1 54	+11.8	„ 8.6 n. 9	45	51	9.6	9.5	10.1	-0 13	+16.6	„ 10.0 n. 42
11	23	8.8	8.7	8.6	-1 9	+14.4	„ 8.9 n. 19	46	51	9.6	9.4	10.1	-1 44	- 5.9	
12	25	8.8	9.0	8.7	-0 25	+ 6.9	„ 9.1 n. 58	47	53	9.6	9.4	10.2	-0 33	+16.6	„ 9.8 n. 38
13	25	8.8	8.6	8.7	-1 12	+15.3	„ 8.8 n. 21	48	55	9.7	9.5	10.3	+0 33	- 9.6	
14	26	8.8	8.7	8.8	-0 9	+29.6	„ 9.0 n. 46	49	58	9.8	9.4	10.4	+0 35	+20.5	
15	29	8.9	9.0	8.9	-1 55	+ 5.9	„ 8.8 n. 5	50	58	9.8		10.4	-0 26	+ 3.1	„ 10.4 n. 64
16	29	8.9	9.0	8.9	-0 25	+24.5	„ 9.0 n. 50	51	59	9.8		10.5	-0 48	+ 2.7	„ 10.3 n. 65
17	31	9.0	9.0	9.0	-0 30	+28.1	„ 9.0 n. 45	52	62	9.9	9.5	10.6	+0 35	+18.2	
18	31	9.0	8.9	9.0	-0 41	-17.1		53	63	9.9	9.5	10.7	-0 10	-15.7	
19	32	9.0	9.1	9.1	-1 25	- 9.0		54	63	9.9	9.5	10.7	-1 35	-23.0	
20	32	9.0	9.2	9.1	-1 46	+ 7.0	„ 9.0 n. 3	55	63	9.9	9.5	10.7	+2 0	-13.2	
21	33	9.0	9.2	9.1	-1 1	+ 9.6	„ 9.0 n. 22	56	64	9.9		10.8	-0 28	+17.1	„ 10.2 n. 40
22	34	9.1	9.4	9.2	-1 44	-20.1		57	65	10.0	9.5	10.8	-0 53	- 2.6	
23	35	9.1	9.1	9.2	+1 8	+26.3		58	68	10.1	9.5	11.0	+1 10	+28.1	
24	36	9.1	9.3	9.3	-1 21	-21.5		59	68	10.1		11.0	+0 16	+ 9.1	
25	36	9.1	9.3	9.3	+0 25	+29.3		60	69	10.1		11.0	+1 10	+ 3.6	
26	37	9.2	9.1	9.4	+1 40	- 4.1		61	70	10.1		11.1	-0 48	+ 0.3	
27	37	9.2	9.3	9.4	-1 46	-23.4		62	71	10.1		11.2	+0 54	- 6.3	
28	37	9.2		9.4	-1 45	+ 8.4	„ 9.1 n. 4	63	72	10.2		11.2	+0 41	+ 3.5	
29	38	9.2	9.2	9.4	-1 23	- 3.2		64	72	10.2		11.2	-0 57	- 9.0	
30	40	9.2	9.2	9.5	-1 48	+ 7.6	„ 9.2 n. 2	65	72	10.2		11.2	+0 45	+ 3.5	
31	40	9.2	9.0	9.5	-1 19	+17.9	„ 9.0 n. 36	66	72	10.2		11.2	+0 39	+11.6	
32	40	9.2	9.3	9.5	+0 19	+ 0.7		67	73	10.2		11.3	-0 34	+ 6.1	„ 10.9 n. 63
33	41	9.3	9.0	9.6	-1 8	-10.8		68	74	10.2		11.3	-0 50	+ 8.7	„ 10.9 n. 62
34	43	9.3	9.2	9.7	-1 10	+21.6	„ 9.2 n. 43	69	74	10.2		11.3	-0 40	-10.8	
35	45	9.4	9.3	9.8	-1 28	+12.1	„ 9.3 n. 24	70	75	10.3		11.4	+0 27	-12.9	

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
71	76	10 <sup>M</sup> .3	9 <sup>M</sup> .5	11 <sup>M</sup> .4	+0 <sup>m</sup> 23 <sup>s</sup>	+14'.4	dpl.	86	90	10 <sup>M</sup> .7		12 <sup>M</sup> .2	+0 <sup>m</sup> 3 <sup>s</sup>	-0'.3	Ch. III. 11 <sup>M</sup> .5
72	76	10.3		11.4	+0 19	-0.2		87	91	10.7		12.3	-0 21	-0.9	
73	78	10.4		11.5	-0 24	-4.2		88	93	10.8		12.4	-0 1	-9.9	
74	78	10.4		11.5	+0 20	-5.3		89	93	10.8		12.4	-0 2	+9.3	
75	80	10.4		11.6	+0 31	+12.7		90	93	10.8		12.4	+0 53	+3.5	
76	81	10.4		11.7	-0 20	+0.7		91	97	10.9		12.6	+0 39	+3.5	
77	82	10.5		11.8	-0 13	-6.2		92	98	10.9		12.7	-0 4	+6.3	
78	82	10.5		11.8	+0 26	+0.2		93	98	10.9		12.7	-0 4	-3.6	
79	84	10.5		11.9	+0 21	-6.3		94	98	10.9		12.7	+0 9	-11.4	
80	84	10.5		11.9	+0 48	-2.1		95	99	11.0		12.8	+0 6	+2.7	
81	85	10.6		12.0	+0 34	-0.6		96	102	11.0		13.0	+0 6	-2.4	
82	85	10.6		12.0	-0 1	+12.9		97	108	11.2		13.3	-0 4	+2.4	
83	88	10.6		12.1	-0 37	-8.7									
84	89	10.7		12.2	+0 15	+2.6									
85	89	10.7		12.2	+1 3	+5.1									

\* In cumulo NGC. 6633.

\*\* Valentiner, Astron. Beobachtungen, Mannheim III Abth. 1879. Magnitudines photographicas M. Wolf vide in AN. 3019 anni 1890.

$$M = 8.7 + 0.029 (G - 21.1).$$

6685

## Y Lyrae

 $18^{\text{h}} 32^{\text{m}} 52^{\text{s}}$  (1855.0)  $+ 43^{\circ} 49'.9$ Typus Antalgol. Periodus: 0<sup>d</sup>502 693 7.

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1			7 <sup>M</sup> .5	7 <sup>M</sup> .3	+3 <sup>m</sup> 51 <sup>s</sup>	+18'.2	PD. 7 <sup>M</sup> .47 GW-	26	45	9 <sup>M</sup> .9	9 <sup>M</sup> .5	10 <sup>M</sup> .8	+1 <sup>m</sup> 38 <sup>s</sup>	+ 4'.5	
2			7.6		-0 48	- 9.4		27	46	9.9	9.5	10.9	+1 46	- 1.5	
3	0	8 <sup>M</sup> .1	8.1	8.4	-0 10	- 3.0		28	48	10.0	9.5	11.0	+1 13	-13.6	
4	1	8.1	8.3	8.5	-0 26	+27.7		29	49	10.1	9.5	11.0	+0 17	+17.2	
5	5	8.3	8.3	8.8	-0 32	+23.9		30	51	10.1		11.1	-0 41	+14.3	
6	10	8.5	8.5	9.1	+2 53	-23.4		31	52	10.2	9.5	11.1	-1 5	+16.4	
7	12	8.6	8.4	9.2	-1 7	+31.0		32	53	10.2	9.5	11.2	+2 15	+29.0	
8	16	8.7	9.1	9.5	-1 7	+ 2.7		33	53	10.2		11.2	+1 22	+11.5	
9	20	8.9	9.0	9.6	-2 44	-19.8		34	56	10.3		11.3	-0 49	+ 5.6	
10	21	8.9	9.2	9.7	-1 46	+25.3		35	56	10.3		11.3	-1 7	+ 3.2	
11	25	9.1	9.1	10.0	+0 50	-20.0		36	56	10.3		11.3	+1 28	-19.5	
12	29	9.3	9.4	10.2	-0 13	+25.0		37	57	10.4		11.4	-0 42	- 3.9	
13	29	9.3	9.3	10.2	+2 44	+23.2		38	60	10.5		11.5	+0 59	+ 8.5	
14	31	9.3	9.3	10.3	-2 31	-16.3		39	61	10.5		11.5	-0 6	+ 1.8	
15	32	9.4	9.3	10.3	-0 42	+ 2.1		40	63	10.6		11.6	-0 51	- 4.6	
16	32	9.4	9.5	10.3	-2 1	+ 4.4		41	63	10.6		11.6	-0 8	- 0.6	W 10 <sup>M</sup> .7 c*
17	33	9.4	9.2	10.3	-2 41	-12.8		42	67	10.8		11.8	-0 3	- 9.7	
18	35	9.5	9.5	10.4	-2 38	+ 9.5		43	71	10.9		12.1	-0 2	- 4.2	„ 11.1 h
19	35	9.5	9.4	10.4	-1 28	+28.5		44	74	11.1		12.3	+0 7	- 3.5	
20	38	9.6	9.3	10.5	+0 49	+29.4		45	77	11.2		12.5	+0 4	- 2.8	„ 11.8 m
21	40	9.7	9.4	10.6	+0 50	- 0.8		46	(77)	11.2		12.5	+0 12	- 4.8	„ 11.6 k var.?
22	40	9.7	9.5	10.6	-0 14	- 2.2		47	79	11.3		12.6	+0 9	+ 0.6	„ 12.1 l
23	42	9.8	9.4	10.7	+1 31	-19.7		48	79	11.3		12.6	-0 16	- 0.3	
24	43	9.8	9.5	10.8	-2 30	-14.8		49	82	11.4		12.9	+0 6	- 2.4	„ 12.0 n
25	(43)	9.8	9.5	10.8	+0 29	-15.9									

\* Stanley Williams in Monthly Notices vol. LXII p. 202.

$$M = 9.2 + 0.040 (G - 27.5).$$

## SY Cygni

19<sup>h</sup> 41<sup>m</sup> 0<sup>s</sup> (1855.0) + 32° 21'.1Typus Algol. Periodus: 6<sup>d</sup>0059.

Num.	Grad.	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Grad.	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1			6 <sup>M</sup> .0	5 <sup>M</sup> .9	-3 <sup>m</sup> 50 <sup>s</sup>	-16'.2	PD. 6 <sup>M</sup> .24 GW	39	56	9 <sup>M</sup> .6	9 <sup>M</sup> .5	10 <sup>M</sup> .2	-1 <sup>m</sup> 18 <sup>s</sup>	+26'.4	
2			6.5	6.2	+0 1	+11.1	" 6.34 G, $\Sigma^2$ 192	40	57	9.7	9.5	10.2	+1 36	+ 1.6	
3	0	8 <sup>M</sup> .2	8.2	7.9	+2 29	+ 5.7		41	58	9.7	9.5	10.2	-1 19	+ 3.1	
4	5	8.3	8.4	8.1	-0 53	+ 0.6		42	58	9.7		10.2	+1 40	+13.2	***
5	10	8.5	8.3	8.3	+1 5	- 9.0		43	59	9.7	9.5	10.3	+0 31	+27.2	
6	11	8.5	9.0	8.4	0 0	+10.5		44	59	9.7	9.5	10.3	-1 15	- 9.6	
7	15	8.6	8.6	8.6	-1 3	+24.2		45	60	9.7		10.3	-0 36	- 5.3	
8	19	8.7	9.0	8.7	+2 4	+15.0		46	61	9.8	9.4	10.4	-1 13	+ 1.2	
9	20	8.7	8.8	8.8	+0 12	+ 0.6		47	61	9.8		10.4	+0 10	- 3.3	*
10	23	8.8	9.0	8.9	-0 2	+ 6.9		48	61	9.8		10.4	-0 10	+ 5.4	
11	24	8.8	9.0	8.9	+2 30	- 5.7		49	61	9.8	9.5	10.4	+2 56	+ 3.3	
12	26	8.9	9.1	9.0	-2 8	+ 6.9		50	63	9.8	9.2	10.5	+2 35	+ 0.5	
13	29	9.0	9.1	9.1	+2 16	- 2.4		51	64	9.8		10.5	+1 38	-11.1	
14	30	9.0	9.3	9.2	-2 21	+24.6		52	64	9.8	9.5	10.5	-2 22	+28.8	
15	33	9.1	9.1	9.3	+2 59	+14.9		53	64	9.8	9.5	10.5	+1 7	+ 8.1	
16	33	9.1	9.3	9.3	-1 21	+20.7		54	64	9.8		10.5	-0 2	+ 1.8	G. 10.8 b
17	34	9.1	9.3	9.3	-0 48	+19.2		55	66	9.9		10.6	+1 40	+ 3.9	
18	36	9.1	9.3	9.4	+1 51	- 6.3		56	66	9.9	9.5	10.6	+2 20	-27.5	
19	37	9.2	9.1	9.4	+1 0	-12.0		57	66	9.9		10.6	+1 41	+13.5	***
20	38	9.2	9.1	9.5	+2 15	0.0		58	67	9.9	9.5	10.6	+0 46	-23.0	
21	42	9.3	9.3	9.6	-0 19	-21.3		59	69	10.0	9.5	10.7	-0 24	- 2.4	G. 11.1 t
22	43	9.3	9.0	9.6	-2 59	-23.3		60	71	10.0	9.5	10.8	+1 48	-16.9	
23	44	9.3	9.4	9.7	-1 21	-27.8		61	72	10.0	9.5	10.8	+2 24	-21.8	
24	47	9.4	9.4	9.8	-2 47	+22.1		62	74	10.1	9.5	10.9	-2 3	- 6.2	
25	47	9.4	9.3	9.8	-2 11	+12.6		63	77	10.2		11.1	+0 19	- 3.9	
26	48	9.4	9.4	9.8	-0 58	-21.9		64	81	10.3		11.3	+0 5	- 1.2	„ 11.4 c
27	50	9.5	9.5	9.9	-1 10	-23.9		65	83	10.3		11.4	+0 5	- 4.8	
28	51	9.5		10.0	+0 39	-11.9		66	85	10.4		11.5	+0 19	- 0.6	„ 11.2 d
29	51	9.5	9.3	10.0	+0 14	+13.2					var.		+4 0	+12.1	5 <sup>M</sup> - 13 <sup>M</sup> ***
30	53	9.6	9.3	10.0	+2 0	+15.1							-0 22	- 1.6	G. 12.0 p
31	53	9.6	9.5	10.0	-2 55	-29.0							-0 36	+ 3.1	„ 12.1 g
32	54	9.6	9.3	10.1	+2 42	+12.3							-0 30	+ 0.6	„ 12.2 h
33	54	9.6	9.5	10.1	-0 55	-27.7							0 0	+ 3.6	„ 12.3 r
34	54	9.6	9.3	10.1	-0 34	-24.7							+0 15	+ 0.6	„ 12.6 k
35	55	9.6	9.3	10.1	+2 26	-18.6							-0 4	- 0.4	„ 12.9 m
36	55	9.6		10.1	+0 6	- 2.7	*						-0 12	- 1.1	„ 13.0 n
37	55	9.6		10.1	0 0	+ 0.7	G. 10.5 a**						-0 4	- 2.5	„ 13.1 s
38	56	9.6	9.3	10.2	+2 57	+26.0									

\* (36 + 47) = BD. + 32° 3559, 9<sup>M</sup>; HP. 9<sup>M</sup>78.

\*\* Graff, Hamburg. Mitt. 11 p. 37 (magnitudines et litterae).

\*\*\* (42 + 57) = BD. + 32° 3569, 9<sup>M</sup>2.

\*\*\*\* Vide Ch. 7120 Ser. III et Ch. XV Ser. V.

$$M = 8.8 + 0.025 (G - 23.0).$$

7220

## S Cygni

 $20^h 2^m 28^s$  (1855.0)  $+57^\circ 34'.2$ Max. =  $2412765^d$  (28 Octobris 1893)  $+323^d E^*$ .

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1	0	7 <sup>M</sup> .2	7 <sup>M</sup> .2	7 <sup>M</sup> .5	+2 <sup>m</sup> 13 <sup>s</sup>	-11'.4	PD. 7 <sup>M</sup> .32 W	36	96	10 <sup>M</sup> .0		10 <sup>M</sup> .8	-1 <sup>m</sup> 7 <sup>s</sup>	+10'.3	
2	15	7.6	7.5	7.9	-0 52	-22.4	„ 8.04 GW+	37	97	10.0	9 <sup>M</sup> .5	10.8	-2 42	-12.1	
3	16	7.6	7.8	8.0	+4 14	-28.3		38	98	10.0		10.8	-0 54	+ 3.2	
4	17	7.7	7.7	8.0	-3 45	-19.6		39	100	10.1	9.5	10.9	+3 15	+11.5	
5	32	8.1	8.1	8.4	+3 34	+19.6		40	101	10.1		10.9	+0 10	-10.2	
6	41	8.4	8.9	8.7	-2 4	-10.4	P. 8.7 c **	41	103	10.2		11.0	+0 58	-14.9	
7	45	8.5	9.0	8.9	-1 53	-25.7		42	104	10.2		11.1	-1 5	+ 1.0	
8	48	8.6	8.6	9.0	-3 12	-28.5		43	107	10.3		11.2	-0 49	+13.1	
9	48	8.6	9.0	9.0	+0 16	- 4.3	„ 9.0 T	44	107	10.3		11.2	+1 22	- 8.0	
10	51	8.6	8.9	9.1	-4 2	+11.4		45	107	10.3		11.2	+0 57	-13.4	
11	52	8.7	8.9	9.1	+0 1	+ 0.7	„ 9.1 d	46	109	10.3		11.2	+1 6	+ 6.8	
12	56	8.8	8.9	9.2	-0 7	+24.3		47	111	10.4		11.3	+1 34	-11.6	
13	56	8.8	8.8	9.2	-3 47	+ 7.3		48	111	10.4		11.3	+0 14	- 1.7	P. 10 <sup>M</sup> .7 l
14	57	8.8	9.1	9.3	+3 40	-26.0		49	113	10.4		11.4	-0 45	- 4.7	
15	61	8.9	9.3	9.4	+1 49	+ 7.6		50	114	10.5		11.5	+0 5	+ 6.4	„ 10.9 m***
16	62	9.0	9.0	9.4	-1 10	+ 1.4	„ 9.5 e	51	114	10.5		11.5	-1 26	-13.5	
17	64	9.0	9.4	9.5	-1 50	+18.5		52	115	10.5		11.5	+0 42	-10.4	
18	66	9.1	9.3	9.6	-2 48	+13.1		53	118	10.6		11.6	+0 21	- 5.5	„ 10.3 k
19	68	9.1		9.7	-3 44	+11.5		54	118	10.6		11.6	-0 35	+10.3	
20	70	9.2	9.2	9.7	-0 6	+ 8.3		55	118	10.6		11.6	-1 48	+ 7.7	
21	70	9.2	9.2	9.7	+2 39	-25.3		56	119	10.6		11.7	+0 26	-15.2	
22	74	9.3	9.2	9.9	-0 6	+ 7.5		57	120	10.6		11.7	+1 36	0.0	
23	74	9.3	9.3	9.9	-3 34	-18.4		58	121	10.7		11.8	-1 22	+10.7	
24	76	9.4		10.0	-1 34	- 4.3		59	123	10.7		11.9	+0 15	- 3.0	
25	76	9.4	9.5	10.0	+0 51	- 5.4	„ 9.7 g	60	124	10.8		11.9	-0 22	- 8.9	
26	78	9.4	9.3	10.0	-0 23	- 2.6	„ 10.0 f	61	125	10.8		12.0	-1 53	- 5.9	
27	78	9.4	9.3	10.0	-2 1	+11.6		62	126	10.8		12.0	-1 14	+ 6.6	
28	78	9.4	9.5	10.0	+1 36	-20.2		63	128	10.9		12.1	-0 43	- 1.4	
29	79	9.5	9.5	10.1	+0 37	+ 6.3		64	129	10.9		12.1	+0 50	+ 6.1	
30	82	9.6	9.4	10.2	-2 13	+12.0		65	129	10.9		12.1	-0 13	- 8.6	
31	84	9.6	9.5	10.3	+2 3	-22.6		66	131	11.0		12.2	-0 21	-12.9	
32	84	9.6	9.4	10.3	-2 31	-28.0		67	134	11.1		12.3	+0 12	+ 2.8	„ 11.4 o
33	86	9.7	9.5	10.3	+1 5	+27.6		68	134	11.1		12.3	-0 20	+ 7.6	
34	88	9.7	9.5	10.4	+1 35	- 2.7		69	137	11.2		12.5	-1 14	- 6.8	dpl.
35	94	9.9		10.6	-1 28	+ 4.3		70	138	11.2		12.6	-1 26	- 8.6	

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
71	139	11 <sup>M</sup> .2		12 <sup>M</sup> .6	+0 <sup>m</sup> 12 <sup>s</sup>	+ 7'.3	P. 11.2 n						+0 <sup>m</sup> 13 <sup>s</sup>	+ 0'.7	P. 13.3 t
72	139	11.2		12.6	-1 33	-13.7	dpl.						+0 1	- 1.0	
73	142	11.3		12.7	+0 43	+ 4.3							-0 13	+ 1.2	„ 14.0 $\alpha$
74	144	11.4		12.8	-0 8	- 5.9							+0 3	- 1.9	„ 14.5 $\gamma$
75	144	11.4		12.8	-0 20	+ 8.5							+0 1	+ 1.0	„ 14.8 $\eta$
					+0 4	- 2.8	P. 11.6 p						-0 5	+ 1.3	„ 15.1 $\theta$
					-0 3	- 2.7	„ 12.1 x						-0 4	- 0.1	„ 15.7 $\delta$
					-0 34	+ 4.9									
					-0 9	+ 0.9	„ 12.4 y								
					-0 26	- 0.4									

\* +0.015 E<sup>2</sup> (Irregularitates magnae).

\*\* Parkhurst, Researches in Stell. Photom. 1906, p. 118, Tab. 72 (magnitudines et litterae).

\*\*\* P.  $\Delta\delta$  = +7'.7 erronea.

$$M = 8.1 + 0.029 (G - 31.8).$$

7223

## SW Cygni

 $20^{\text{h}} 2^{\text{m}} 25^{\text{s}}$  (1855.0)  $+45^{\circ} 52'.9^*$ Typus Algol. Periodus: 4.<sup>d</sup>572 820.

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1	0	7. <sup>M</sup> 9	8. <sup>M</sup> 0	7. <sup>M</sup> 4	-2 <sup>m</sup> 17 <sup>s</sup>	+32'.1		28	62	9. <sup>M</sup> 7	10. <sup>M</sup> 6		+0 <sup>m</sup> 32 <sup>s</sup>	-12'.4	
2	3	8.0	8.0	7.6	-2 15	+ 3.9		29	66	9.8	10.8		-1 15	+ 9.3	
3	8	8.1	8.0	7.9	+0 54	-18.1		30	66	9.8	10.8		+1 6	- 0.2	
4	8	8.1	8.1	7.9	-2 42	+ 2.8		31	68	9.9	10.9		-0 49	+10.8	
5	15	8.3	8.6	8.3	-1 30	+23.0		32	70	9.9	11.0		+0 20	+15.0	
6	17	8.4	8.1	8.4	+1 29	+ 3.9		33	74	10.1	11.3		-0 35	+12.5	
7	24	8.6	8.8	8.8	-0 44	- 1.0	G. 9. <sup>M</sup> 0 a**	34	75	10.1	11.4		+0 52	+ 6.6	
8	27	8.7	8.6	8.9	-0 20	-23.3		35	76	10.1	11.4		-0 20	+ 0.7	G. 11. <sup>M</sup> 6 k
9	28	8.7	9.0	9.0	+1 50	+21.1		36	78	10.2	11.5		+1 10	+ 7.6	
10	30	8.8	8.5	9.1	+2 17	+22.1		37	79	10.2	11.6		-0 33	- 9.1	
11	33	8.9	9.0	9.2	-1 24	-12.0		38	81	10.3	11.7		+0 22	- 9.3	
12	41	9.1	9.1	9.6	+1 12	- 2.1	„ 9.4 e	39	88	10.5	12.2		-0 42	-11.2	
13	41	9.1	9.1	9.6	+1 16	+29.3		40	90	10.5	12.4		+0 5	+ 9.7	
14	44	9.2	8.8	9.7	-2 45	+27.0		41	90	10.5	12.4		+0 26	+ 8.4	
15	45	9.2	9.4	9.7	-0 54	- 0.2	„ 10.1 f	42	90	10.5	12.4		-1 5	- 6.9	
16	48	9.3	9.5	9.9	+2 38	+14.0		43	91	10.6	12.5		+0 31	- 2.8	„ 11.8 g
17	48	9.3	9.4	9.9	+0 26	- 1.2	„ 9.8 d	44	92	10.6	12.5		-0 15	- 6.9	
18	49	9.3	9.5	9.9	+0 56	+ 7.8		45	94	10.6	12.6		+0 50	- 7.0	
19	52	9.4	9.5	10.1	+0 40	-15.7		46	95	10.7	12.7		+1 8	-12.3	
20	52	9.4	9.2	10.1	-0 10	+ 2.4	„ 10.0 b	47	98	10.8	13.0		+1 5	-12.3	
21	53	9.4		10.1	+2 45	-11.6		48	99	10.8	13.0		+1 9	- 6.3	
22	53	9.4	9.5	10.1	-0 42	+12.9		49	99	10.8	13.0		0 0	- 6.3	
23	56	9.5		10.3	-0 56	- 1.8	„ 10.7 h	50	102	10.9	13.2		+0 5	+10.1	
24	57	9.6	9.4	10.3	-0 18	+ 2.8	„ 10.4 c	51	104	10.9	13.4		+0 26	+ 8.7	
25	57	9.6	9.5	10.3	+1 46	-19.2									
26	59	9.6	9.5	10.4	+2 14	+ 9.7									
27	59	9.6	9.5	10.4	+0 10	+12.6									

\* In Charta pro 40<sup>o</sup> lege 46<sup>o</sup>.

\*\* Graff, Hamburg. Mitt. 11 p. 30 (magnitudines et litterae).

$$M = 9.1 + 0.029 (G - 41.0).$$



7260

## Z Aquilae

 $20^{\text{h}} 7^{\text{m}} 27^{\text{s}}$  (1855.0) —  $6^{\circ} 35'.4$ Max. =  $2\ 413\ 131^{\text{d}}$  (29 Octobris 1894) +  $127^{\text{d}}.2\ \text{E}$ .

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1			$6^{\text{M}}.8$	$6^{\text{M}}.9$	$-2^{\text{m}}32^{\text{s}}$	$-12'.3$		28	52	$9^{\text{M}}.9$	$9^{\text{M}}.8$	$10^{\text{M}}.8$	$+1^{\text{m}}13^{\text{s}}$	$-29'.9$	
2			7.0	7.0	+0 14	+36.5		29	54	9.9	9.8	10.9	+1 55	+23.9	
3			7.5	7.3	-0 46	+ 6.5	*	30	56	10.0	9.8	11.0	-0 7	+29.8	
4	0	$8^{\text{M}}.4$	8.5	8.2	+0 7	- 6.7		31	57	10.0	10	11.1	+1 22	+ 6.5	
5	1	8.4	8.5	8.3	-0 41	-31.1		32	61	10.1		11.3	-0 53	-15.6	
6	12	8.7	9.0	8.8	-0 45	+ 6.7	*	33	62	10.1		11.3	+1 1	-15.0	
7	13	8.8	9.0	8.9	-2 17	+18.9		34	64	10.2		11.4	-0 3	- 9.8	
8	17	8.9	8.7	9.1	+2 5	+35.8		35	65	10.2	9.8	11.5	+1 51	+19.8	
9	20	9.0	9.0	9.2	+1 45	-22.1		36	66	10.3		11.5	-0 21	- 5.4	
10	25	9.1	9.1	9.4	-0 56	+30.2		37	68	10.3		11.6	-0 3	- 3.6	
11	27	9.2	9.1	9.5	-1 56	+23.3		38	68	10.3		11.6	+0 39	-12.8	
12	30	9.3	9.2	9.7	+0 5	- 9.1		39	68	10.3		11.6	+1 4	+ 5.5	
13	33	9.3	9.5	9.9	-1 33	-21.1		40	69	10.3		11.7	-0 8	+ 1.2	
14	35	9.4	9.4	10.0	-0 10	+12.0		41	71	10.4		11.8	+0 11	+13.7	
15	38	9.5	9.5	10.0	-0 34	+15.0		42	73	10.5		11.9	-0 54	+ 9.1	
16	39	9.5	9.7	10.1	+0 10	+30.5		43	77	10.6		12.1	+0 19	+11.4	
17	39	9.5	9.7	10.1	+0 21	+35.5		44	81	10.7		12.3	-0 17	+14.2	dpl.
18	40	9.5	9.5	10.2	+1 49	+ 7.1		45	83	10.7		12.4	-0 54	-12.3	
19	40	9.5	9.8	10.2	-0 30	+19.1		46	83	10.7		12.4	+0 10	+ 3.9	
20	42	9.6	9.5	10.3	-1 36	-31.8		47	86	10.8		12.6	+0 13	+ 1.2	
21	44	9.6	9.8	10.4	+0 29	-21.8		48	87	10.8		12.6	+0 29	+ 2.7	
22	44	9.6	9.8	10.4	+1 24	+16.9		49	89	10.9		12.7	+0 19	+ 3.8	
23	45	9.7	9.5	10.5	-1 26	-31.8		50	91	11.0		12.8	-0 3	+ 3.3	
24	46	9.7	9.5	10.5	-0 23	- 2.6		51	91	11.0		12.8	-0 12	-12.0	
25	47	9.7	9.5	10.6	-0 41	+25.0		52	93	11.0		12.9	+0 8	+ 1.5	
26	48	9.8		10.6	-0 13	- 9.9		53	96	11.1		13.0	-0 7	0.0	
27	49	9.8	9.7	10.7	+2 6	+ 8.2		54	96	11.1		13.0	+0 3	+ 2.2	

\* (3 + 6) =  $H_2 25 = \Sigma 2646$ . Differentiae  $\Delta\delta$  in BD. inversae: +  $6'.8$  et +  $6'.6$ .

$$M = 9.2 + 0.028 (G - 28.2).$$

7360

## RU Capricorni

 $20^{\text{h}} 24^{\text{m}} 6^{\text{s}}$  (1855.0)  $-22^{\circ} 10'.7$ Max. =  $2\,415\,270^{\text{d}}$  (7 Septemb. 1900) +  $341^{\text{d}}$  E.

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1	0	7 <sup>M</sup> .7	7 <sup>M</sup> .7	7 <sup>M</sup> .5	+0 <sup>m</sup> 56 <sup>s</sup>	-32'.6	CoD. 7 <sup>M</sup> .6	21	73	9 <sup>M</sup> .8	9 <sup>M</sup> .8	10 <sup>M</sup> .4	+1 <sup>m</sup> 28 <sup>s</sup>	+18'.9	
2	7	7.9	8.5	7.7	-0 22	-28.1	„ 8.3 } h <sup>29</sup> 73 „ 8.5 }	22	76	9.9	10	10.5	+0 47	+10.2	
3	13	8.1	8.8	7.9	-0 20	-28.8		23	78	9.9	10	10.5	+0 26	+24.1	
4	38	8.8	8.8	8.7	+0 53	+15.3		24	78	9.9	9.9	10.5	+0 21	+11.4	
5	38	8.8	8.7	8.7	-2 57	+33.8		25	80	10.0	10	10.7	+1 35	+ 6.6	CoD. 10
6	42	8.9	9.0	8.9	-2 30	+26.6		26	81	10.0	9.8	10.8	0 0	+13.8	
7	43	8.9	9.2	8.9	+1 49	-30.2	„ 9.0	27	83	10.1		10.9	-1 11	-14.1	„ 9.8
8	46	9.0	9.1	9.0	-2 43	+29.8		28	84	10.1		11.0	0 0	+ 5.4	„ 9.7
9	49	9.1	9.1	9.2	+2 10	+14.8		29	87	10.2		11.2	+0 19	+ 1.2	„ 9.9
10	54	9.2	9.0	9.4	+1 2	+26.0		30	90	10.3		11.4	+0 10	- 2.4	„ 9.9
11	55	9.3	9.3	9.4	-1 41	-25.1	„ 9.3	31	96	10.5		11.8	+0 16	- 6.6	„ 10
12	57	9.3	9.2	9.5	-0 47	-20.8	„ 9.1	32	97	10.5		11.9	+0 27	- 8.8	„ 10
13	58	9.4	9.3	9.5	-1 36	-21.6	„ 9.1	33	102	10.6		12.3	+0 44	-15.0	„ 10
14	61	9.4	9.4	9.7	-1 38	+29.6		34	102	10.6		12.3	-0 22	- 2.4	
15	64	9.5	9.5	9.8	+0 26	-30.2	„ 9.7	35	104	10.7		12.4	-0 55	- 6.6	
16	66	9.6	9.7	10.0	-0 10	- 5.4	„ 9.5	36	105	10.7		12.5	-0 47	- 0.6	„ 10
17	67	9.6	9.7	10.0	+1 48	+26.8		37	107	10.8		12.7	-0 19	- 3.2	
18	70	9.7	9.7	10.2	+1 43	- 6.0	„ 9.5	38	110	10.9		12.9	0 0	-10.2	
19	71	9.7	9.5	10.2	+1 40	-21.5	„ 9.5	39	112	10.9		13.1	-0 28	+ 8.1	
20	72	9.8	9.6	10.3	+0 23	-28.1	„ 9.7	40	114	11.0		13.2	0 0	- 6.9	

$$M = 9.4 + 0.029 (G - 59.3)$$

7399

## W Delphini

 $20^{\text{h}} 31^{\text{m}} 4^{\text{s}}$  (1855.0) +  $17^{\circ} 46'.9$ Typus Algol. Periodus: 4<sup>d</sup>806 120 (irregularis).

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1			7 <sup>M</sup> .0	6 <sup>M</sup> .3	+0 <sup>m</sup> 14 <sup>s</sup>	- 1'.0	PD. 6 <sup>M</sup> .02 G	38	89	10 <sup>M</sup> .7		11 <sup>M</sup> .7	-0 <sup>m</sup> 23 <sup>s</sup>	-11'.4	dpl.
2	0	8 <sup>M</sup> .5	8.5	8.4	+1 28	-25.5		39	91	10.8		11.8	-0 9	+11.7	
3	5	8.6	8.8	8.6	-1 21	-28.7		40	92	10.8		11.8	+0 34	- 2.1	
4	11	8.8	8.8	8.8	-0 58	- 0.3		41	93	10.8		11.8	-0 45	+13.8	
5	18	9.0		9.1	-1 51	+28.1	*	42	94	10.9		11.9	+0 33	-13.2	
6	19	9.0	9.3	9.2	-0 4	+18.0		43	95	10.9		11.9	-0 28	- 6.1	
7	23	9.1	9.3	9.3	-1 3	+ 9.9		44	97	10.9		12.0	-0 55	+11.7	
8	25	9.1	9.3	9.4	+0 18	- 0.9	G. 9.7 a**	45	98	11.0		12.0	-0 58	- 9.3	
9	29	9.2	9.1	9.6	+0 13	-11.3	***	46	99	11.0		12.0	-0 42	- 9.1	
10	33	9.3	9.3	9.7	+0 10	+15.0		47	102	11.1		12.1	-0 27	+11.4	
11	37	9.4	9.4	9.9	+0 10	-30.5		48	103	11.1		12.2	-0 35	-12.4	G. 11 <sup>M</sup> .6 f
12	38	9.5	9.5	10.0	-0 11	+23.2		49	105	11.1		12.2	+0 56	- 0.6	
13	38	9.5		10.0	-1 51	+28.5	*	50	105	11.1		12.2	-0 38	+15.3	
14	38	9.5		10.0	+0 56	- 2.1		51	107	11.2		12.3	-0 20	- 8.4	
15	39	9.5		10.0	+0 29	- 5.1		52	108	11.2		12.3	+0 47	+ 5.1	
16	39	9.5	9.5	10.0	-0 2	+23.5		53	110	11.3		12.4	-0 8	-11.7	
17	41	9.5	9.3	10.1	+1 20	-23.6		54	110	11.3		12.4	-0 41	+10.2	
18	41	9.5		10.1	-0 4	+ 9.0	G. 9.6 b	55	113	11.3		12.5	+0 25	+ 3.9	
19	44	9.6	9.5	10.2	+0 43	+17.3		56	114	11.4		12.5	+0 44	+ 3.6	
20	50	9 8		10.4	-1 8	+ 9.0		57	115	11.4		12.5	-0 2	- 6.8	
21	53	9.8	9.5	10.5	-1 53	-28.7		58	115	11.4		12.5	-0 21	+ 3.6	,, 12.3 g, dpl.
22	53	9.8		10.5	+0 7	+24.5		59	116	11.4		12.5	+0 27	+14.2	
23	56	9.9	9.5	10.6	-1 33	+26.4		60	117	11.4		12.6	-0 54	-13.8	
24	56	9.9		10.6	+0 50	- 0.9		61	117	11.4		12.6	+0 28	+ 5.7	
25	60	10.0		10.7	+1 3	- 1.8		62	118	11.5		12.6	-0 44	- 3.6	
26	63	10.1		10.8	+0 35	+19.8		63	119	11.5		12.6	-0 57	+ 9.6	
27	66	10.2		10.9	+0 16	+15.0		64	121	11.5		12.7	+0 34	+ 2.7	
28	69	10.2		11.0	+0 44	+ 2.3		65	124	11.6		12.8	-0 35	- 9.3	
29	72	10.3		11.1	+0 36	- 3.1		66	125	11.6		12.8	-0 47	+14.7	
30	76	10.4		11.3	+0 9	- 5.3	„ 11.0 h	67	125	11.6		12.8	-0 46	+ 1.5	
31	78	10.5		11.4	+0 42	+ 5.7		68	127	11.7		12.9	-0 5	- 6.0	,, 12.3 k
32	81	10.5		11.5	+0 20	+ 1.2	„ 10.9 e	69	135	11.9		13.1	-0 32	- 5.4	
33	83	10.6		11.5	+1 0	+ 2.9		70	137	11.9		13.2	-0 19	+ 1.8	
34	87	10.7		11.6	-0 4	+ 2.7	„ 10.8 c	71	149	12.2		13.5	-0 39	- 9.1	
35	88	10.7		11.7	+0 14	0.0	„ 11.2 d						-0 5	+ 5.2	
36	88	10.7		11.7	-0 46	+ 5.5									
37	89	10.7		11.7	-0 52	+12.6									

\* (5+13) = BD. + 18<sup>o</sup> 4540, 8<sup>M</sup>.7.

\*\* Graff, Hamburg. Mitt. 11, p. 21 (magnitudines et litterae).

\*\*\* BD. + 17<sup>o</sup> 4368,  $\Delta\alpha = +5^{\circ}$ .

$$M = 9.0 + 0.025 (G - 19.1).$$

7435

## Y Aquarii

 $20^{\text{h}} 36^{\text{m}} 46^{\text{s}}$  (1855.0) —  $5^{\circ} 21'.4$ Max. = 2 415 224<sup>d</sup> (23 Iulii 1900) + 382<sup>d</sup> E.

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1			7 <sup>M</sup> .8		-1 <sup>m</sup> 56 <sup>s</sup>	-27'.7		26	91	10 <sup>M</sup> .8		11 <sup>M</sup> .8	-0 <sup>m</sup> 47 <sup>s</sup>	- 3'.9	
2	0	8 <sup>M</sup> .6	9.0	8 <sup>M</sup> .6	-1 7	-20.0		27	95	10.9		11.9	-0 39	- 7.5	
3	4	8.7	8.9	8.8	-0 9	+ 3.0		28	99	11.0		12.0	-0 48	+ 0.6	
4	5	8.7	8.7	8.9	+1 13	+11.2		29	102	11.1		12.0	-0 25	- 0.3	
5	6	8.7	8.7	8.9	-0 56	+23.1		30	104	11.2		12.1	+0 14	-10.8	
6	8	8.8	8.8	9.0	-0 39	+ 6.6		31	109	11.3		12.2	+0 12	- 3.1	
7	11	8.8	8.8	9.1	+1 9	+23.7		32	109	11.3		12.2	-0 14	+ 0.3	
8	17	9.0	9.0	9.4	+0 8	+27.8		33	113	11.4		12.3	+0 46	- 5.6	
9	25	9.2	9.3	9.8	-1 20	- 9.0		34	115	11.4		12.3	-1 20	+25.7	
10	28	9.3	9.3	9.9	+0 14	+21.5		35	117	11.5		12.4	-0 48	+11.7	
11	31	9.3	9.4	10.1	+0 28	-12.0		36	117	11.5		12.4	+0 41	-12.3	
12	36	9.5	9.5	10.3	+1 0	+22.7		37	121	11.6		12.5	+0 16	-12.9	
13	37	9.5	9.5	10.3	-1 51	+ 8.7		38	123	11.6		12.5	+0 56	-14.4	
14	40	9.6	9.7	10.4	-0 13	+14.9		39	128	11.8		12.7	+0 31	- 0.9	
15	47	9.7	9.6	10.7	+1 41	+18.3		40	130	11.8		12.7	-0 2	- 4.1	
16	47	9.7	9.5	10.7	+0 28	+11.5		41	133	11.9		12.8	-0 23	-12.0	
17	50	9.8	9.7	10.8	-1 8	-12.0		42	133	11.9		12.8	+0 37	+ 9.6	
18	52	9.9	9.7	10.8	+0 15	-21.6		43	135	11.9		12.9	-0 8	- 6.3	
19	61	10.1	9.6	11.1	+1 6	+22.3		44	139	12.0		13.0	-0 37	+ 0.7	
20	65	10.2		11.2	+1 39	-12.0		45	141	12.1		13.1	+0 12	+13.5	
21	70	10.3		11.3	+0 48	-23.0		46	143	12.1		13.2	+0 44	+13.8	
22	75	10.4	10	11.5	+1 47	- 9.3		47	143	12.1		13.2	+0 38	+14.1	
23	76	10.5	10	11.5	-1 14	+ 5.9		48	147	12.2		13.3	-0 29	+10.2	
24	84	10.7	9.9	11.7	-1 19	+24.0		49	150	12.3		13.5	-0 12	+ 0.3	
25	88	10.8		11.7	+0 48	+12.3									

$$M = 9.3 + 0.025 (G - 29.7).$$

7448

## W Aquarii

 $20^{\text{h}} 38^{\text{m}} 48^{\text{s}}$  (1855.0) —  $4^{\circ} 36'.6$ Max. =  $2\ 412\ 825^{\text{d}}$  (27 Decemb. 1893) +  $382^{\text{d}}$  E.

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1			7 <sup>M</sup> .0	7 <sup>M</sup> .2	-2 <sup>m</sup> 12 <sup>s</sup>	+10'.5		24	141	10 <sup>M</sup> .0		11 <sup>M</sup> .9	+0 <sup>m</sup> 41 <sup>s</sup>	+14'.4	
2	0	7 <sup>M</sup> .6	7.5	7.4	+1 50	-33.2		25	142	10.0		12.0	+0 17	-10.2	
3	27	8.0	8.5	8.2	+0 17	- 9.5		26	143	10.0		12.0	+0 15	-15.0	
4	30	8.1	8.3	8.3	+0 21	+ 1.6		27	147	10.1		12.1	+0 7	+ 6.6	
5	54	8.5	8.8	9.0	-0 52	-21.0		28	148	10.1		12.2	+0 6	-10.2	
6	61	8.6	9.0	9.3	-1 53	-17.1		29	152	10.2		12.3	-1 16	+13.2	
7	91	9.1	9.1	10.2	-0 3	-10.2		30	158	10.3		12.5	-1 1	+14.0	
8	92	9.1	9.3	10.2	+0 30	+ 1.0		31	163	10.3		12.7	-0 53	-11.9	
9	97	9.2	9.3	10.4	-1 48	-23.3		32	163	10.3		12.7	+1 3	- 3.6	
10	103	9.3	9.1	10.6	+0 12	- 7.2		33	169	10.4		12.9	-1 8	+14.1	
11	107	9.4	9.4	10.8	+0 13	+21.5		34	170	10.5		13.0	+0 59	- 5.4	
12	111	9.5	9.5	10.9	-1 2	-21.8		35	171	10.5		13.0	-0 57	-15.0	
13	(114)	(9.5)	9.6	(11.0)	-0 21	-26.2	*	36	171	10.5		13.0	+0 16	+ 1.6	
14	117	9.6	9.5	11.1	-0 57	- 3.8		37	173	10.5		13.1	+0 41	- 8.4	
15	121	9.6	9.5	11.2	-0 39	+11.9		38	174	10.5		13.1	-0 12	- 8.9	
16	123	9.7	9.5	11.3	-0 3	+19.9		39	178	10.6		13.2	0 0	+ 5.9	
17	127	9.7	9.7	11.4	+0 59	+25.9		40	179	10.6		13.3	-0 24	-15.0	
18	129	9.8	9.8	11.5	-0 21	- 0.1		41	181	10.7		13.4	+0 11	+ 1.6	
19	130	9.8	9.7	11.5	+0 52	-23.0		42	182	10.7		13.4	-0 12	-12.9	
20	131	9.8	9.5	11.6	+1 0	+ 5.9		43	185	10.7		13.5	-0 6	-13.2	
21	131	9.8		11.6	-1 8	+17.8		44	188	10.8		13.6	-0 36	- 9.0	
22	131	9.8	9.6	11.6	-0 57	-22.7	**	45	190	10.8		13.7	-0 31	+ 6.2	
23	134	9.9	9.8	11.7	+1 34	- 3.6									

\* Gradus variabiles intra 105 et 130.

\*\* BD. —  $4^{\circ} 5247$ ,  $\Delta\alpha = -54^{\text{s}}$ .

$$M = 9.2 + 0.017 (G - 95.7).$$

7458

## V Delphini

 $20^h 41^m 11^s$  (1855.0) +  $18^\circ 48'.3$ Max. =  $2411\,739^d$  (6 Ianuarii 1891) +  $532^d.5$  E.\*

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1	0	8 <sup>M</sup> .2	8 <sup>M</sup> .2	8 <sup>M</sup> .5	-3 <sup>m</sup> 15 <sup>s</sup>	+11'.3	P. 8 <sup>M</sup> .0 $\epsilon$ **	33	74	10 <sup>M</sup> .6		11 <sup>M</sup> .7	-0 <sup>m</sup> 24 <sup>s</sup>	- 0'.2	P. 11 <sup>M</sup> .2 d
2	4	8.3	8.3	8.7	-1 8	-33.5		34	75	10.6		11.8	+0 39	+ 2.6	
3	11	8.5	8.5	8.9	+0 58	+31.3		35	77	10.7		11.9	+0 48	+ 9.2	
4	17	8.7	8.8	9.1	-1 8	- 5.4	„ 9.2 $\delta$	36	78	10.7		12.0	+0 40	- 3.6	
5	20	8.8	8.9	9.3	-0 40	- 2.4	„ 9.4 x	37	78	10.7		12.0	+0 16	- 0.8	„ 11.4 e
6	22	8.9	9.0	9.3	-1 33	+ 8.7		38	78	10.7		12.0	+0 4	+ 6.2	
7	24	8.9	9.0	9.4	+1 18	+28.9		39	82	10.9		12.2	-0 20	+ 1.9	„ 11.4 c
8	25	9.0	9.0	9.4	-0 40	- 5.1	„ 9.9 m'	40	82	10.9		12.2	-0 47	- 3.2	
9	28	9.1	9.3	9.5	+0 44	-26.1		41	84	10.9		12.3	+0 7	+ 7.0	
10	28	9.1	9.4	9.5	-0 40	+28.9		42	85	11.0		12.4	+0 59	-11.7	
11	30	9.1	8.9	9.6	-1 1	-20.9		43	86	11.0		12.5	+0 20	- 9.7	
12	32	9.2	9.2	9.7	-0 44	- 8.6	„ 10.0 n'	44	88	11.1		12.6	+0 49	-10.2	
13	36	9.3	9.5	9.9	+1 16	- 2.1		45	88	11.1		12.6	-0 9	+14.1	
14	39	9.4	9.5	10.0	+1 18	-30.0	***	46	88	11.1		12.6	+0 14	+ 0.5	„ 11.8 h
15	41	9.5	9.5	10.1	-0 21	-26.8		47	90	11.1		12.7	-0 22	- 4.5	„ 11.8 l
16	43	9.6	9.1	10.2	-0 53	+ 7.9	„ 10.0 n	48	93	11.2		12.9	-0 53	- 4.2	
17	47	9.7	9.3	10.3	-1 46	+21.2		49	98	11.3		13.2	+0 15	0.0	„ 12.1 b
18	48	9.7		10.4	+0 54	+20.9		50	98	11.3		13.2	-0 9	+ 0.6	„ 12.3 a
19	48	9.7		10.4	+1 9	- 2.5							+0 7	+ 0.7	„ 13.6 y
20	49	9.8		10.5	+0 58	+27.2							+0 7	- 2.7	„ 13.7 x
21	51	9.8		10.6	-0 27	+11.6	„ 10.4 k						-0 4	- 1.8	„ 13.9 $\omega$
22	53	9.9		10.7	+0 57	- 9.2							0 0	- 2.5	„ 14.3 $\sigma$
23	54	9.9		10.7	-0 14	+14.7	„ 10.3 m						-0 5	- 1.5	„ 14.4 $\omega'$
24	59	10.0		10.9	+0 41	-12.3							+0 1	- 2.6	„ 14.6 $\sigma'$
25	60	10.1		11.0	+0 58	+11.3							-0.3	- 1.2	„ 14.9 $\varrho$
26	63	10.2		11.1	+0 20	-13.4							-0 2	- 0.7	„ 15.3 $\varphi$
27	63	10.2		11.1	+0 41	-26.8							+0 3	+ 0.7	„ 15.4 $\pi$
28	66	10.3		11.3	+0 42	+ 1.7							0 0	- 0.2	„ 15.5 $\mu$
29	68	10.4		11.4	-0 8	- 4.4	„ 11.1 g						-0 1	- 0.1	„ 16.4 A
30	70	10.5		11.5	-0 39	-10.2									
31	72	10.5		11.6	-0 11	+ 2.7	„ 11.2 f								
32	72	10.5		11.6	-1 0	- 4.8									

\* Periodo decrescente?

\*\* Parkhurst, Researches in Stell. Photom. 1906 p. 147 Tab. 91.

\*\*\* BD. +  $18^\circ 46'23$   $\Delta\delta = -27'.5$  erronea.BD. +  $19^\circ 45'13$ , 9<sup>M</sup>.4 (-28<sup>s</sup>, +13'.7) } nunquam visae (1899, 1900, 1902).BD. +  $19^\circ 45'18$ , 9<sup>M</sup>.5 (+25<sup>s</sup>, +24'.5) }

$$M = 8.9 + 0.033 (G - 22.7).$$

7492

## RZ Cygni

 $20^{\text{h}} 47^{\text{m}} 2^{\text{s}}$  (1855.0) +  $46^{\circ} 48'.7$ Max. =  $2\,417\,049^{\text{d}}$  (22 Iulii 1905) +  $273^{\text{d}}$  E.

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1			6 <sup>M</sup> .0	5 <sup>M</sup> .8	+3 <sup>m</sup> 55 <sup>s</sup>	+ 3'.2	PD. 5 <sup>M</sup> .84 WG-	31	44	9 <sup>M</sup> .6	9 <sup>M</sup> .5	10 <sup>M</sup> .0	-0 <sup>m</sup> 9 <sup>s</sup>	0'.0	
2			7.8		+3 58	-15.9		32	45	9.6	9.4	10.1	-0 48	-10.6	
3			7.5	7.5	-0 21	+21.1	„ 7.48 GW	33	46	9.7	9.5	10.1	+2 7	+ 4.5	
4	0	8 <sup>M</sup> .7	8.4	8.3	+2 49	- 5.2		34	47	9.7		10.2	+1 56	-16.9	**
5	4	8.8	8.8	8.5	+2 44	+23.0		35	47	9.7	9.5	10.2	+0 39	+14.4	
6	7	8.9	9.0	8.6	+1 52	-14.9		36	48	9.7	9.5	10.2	-1 21	+13.9	
7	8	8.9	9.2	8.6	-2 1	-21.0		37	48	9.7		10.2	+1 22	+18.5	***
8	9	8.9	8.8	8.7	-0 24	+25.0		38	48	9.7		10.2	+1 38	-10.5	
9	12	9.0	9.4	8.8	+1 36	-21.6		39	49	9.7	9.5	10.3	-1 5	+22.3	
10	14	9.0	9.0	8.8	-0 49	+ 9.2		40	50	9.7	9.5	10.3	+1 43	- 9.1	
11	17	9.1	9.3	8.9	+1 37	+24.8		41	50	9.7	9.4	10.3	+2 33	+11.8	
12	18	9.1	9.0	9.0	+0 7	+14.3		42	50	9.7	9.5	10.3	+0 30	-18.6	
13	19	9.1	9.3	9.0	+0 27	-26.6		43	52	9.8		10.4	+0 54	- 5.4	
14	20	9.1	9.2	9.1	-1 57	-17.9		44	53	9.8	9.5	10.4	-1 39	+11.4	
15	21	9.2	9.1	9.1	+2 36	+ 6.6		45	55	9.8		10.5	+0 35	- 2.7	
16	24	9.2	9.2	9.2	-2 37	-18.0		46	56	9.9	9.5	10.6	+2 33	+ 2.1	
17	28	9.3	9.2	9.4	+0 34	- 9.6		47	56	9.9		10.6	+1 32	- 5.9	*
18	28	9.3	9.5	9.4	-1 52	+21.3		48	57	9.9	9.4	10.6	+2 21	+ 7.8	
19	30	9.3	9.4	9.5	-1 32	-24.1		49	57	9.9	9.5	10.6	-2 4	+11.1	
20	31	9.4	9.1	9.5	+2 13	-18.7		50	57	9.9		10.6	+0 19	- 3.8	H. e ****
21	32	9.4	9.3	9.6	-0 8	-24.5		51	58	9.9	9.5	10.7	+2 24	+17.3	
22	35	9.4		9.7	-0 9	-25.7		52	58	9.9		10.7	+0 19	+ 7.8	
23	35	9.4		9.7	-0 13	+12.8		53	61	10.0		10.8	+0 32	- 5.7	„ d
24	37	9.5	9.5	9.8	-0 22	+10.7		54	63	10.0		10.9	-0 29	-11.9	
25	37	9.5	9.4	9.8	+2 45	+ 9.9		55	63	10.0		10.9	-0 36	+ 8.4	
26	38	9.5	9.4	9.8	-1 34	+ 6.3		56	64	10.0		11.0	+0 30	- 9.0	
27	38	9.5		9.8	+1 31	- 6.2	*	57	64	10.0		11.0	+1 9	+ 0.9	
28	43	9.6		10.0	+1 52	-16.3	**	58	66	10.1		11.1	-0 58	+ 9.8	
29	43	9.6	9.5	10.0	+2 16	+ 1.1		59	66	10.1		11.1	-1 3	+ 9.3	dpl.
30	44	9.6		10.0	+1 31	+18.6	***	60	66	10.1		11.1	+0 22	+ 1.6	

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
61	67	10 <sup>M</sup> .1		11 <sup>M</sup> .1	-0 <sup>m</sup> 17 <sup>s</sup>	+14'.1		71	75	10 <sup>M</sup> .2		11 <sup>M</sup> .6	0 <sup>m</sup> 0 <sup>s</sup>	- 2'.0	
62	68	10.1		11.2	-0 57	-12.0		72	77	10.3		11.7	0 0	- 2.4	
63	68	10.1		11.2	+0 29	+ 7.1		73	77	10.3		11.7	+1 14	- 8.4	
64	68	10.1		11.2	+0 52	- 0.3		74	77	10.3		11.7	+0 30	- 8.4	
65	68	10.1		11.2	-0 9	- 2.0	H. c	75	77	10.3		11.7	-0 11	+ 3.2	H. b
66	69	10.1		11.3	-0 16	- 3.4		76	82	10.4		12.0	+0 32	- 0.6	dpl.
67	71	10.2		11.4	-0 3	- 4.9		77	87	10.5		12.3	+0 25	- 9.6	
68	71	10.2		11.4	-0 47	+ 5.2		78	104	10.8		13.2	-0 4	+ 0.7	H. y
69	72	10.2		11.4	+0 8	- 2.0	„ a								
70	74	10.2		11.5	-0 21	+ 6.9									

\* (27 + 47) = BD. + 46° 3088, 9<sup>M</sup>.3

\*\* (28 + 34) = BD. + 46° 3091, 9<sup>M</sup>.5

\*\*\* (30 + 37) = BD. + 47° 3212, 9<sup>M</sup>.3

\*\*\*\* Hartwig, AN. 3553 (litterae).

$$M = 9.2 + 0.020 (G - 23.3).$$



7571a

## TW Cygni

 $20^{\text{h}} 59^{\text{m}} 49^{\text{s}}$  (1855.0)  $+28^{\circ} 49'.7$ Max. = 2 415 977<sup>d</sup> (15 Augusti 1902)  $+347^{\text{d}}$  E.\*

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1			6 <sup>M</sup> .1	5 <sup>M</sup> .6	+2 <sup>m</sup> 40 <sup>s</sup>	+47'.6	PD. 5 <sup>M</sup> .98 W**	31	31	9 <sup>M</sup> .7	9 <sup>M</sup> .4	10 <sup>M</sup> .2	+0 <sup>m</sup> 9 <sup>s</sup>	+30'.1	
2			7.0	7.0	-2 31	-18.3	„ 7.06 WG	32	32	9.8		10.3	-1 54	+ 9.0	
3			8.4		+2 44	+18.0		33	34	9.8	9.5	10.4	-0 54	+23.3	
4			8.0		-0 31	-18.6		34	36	9.9		10.5	-0 30	+18.0	
5	0	8 <sup>M</sup> .8	8.9	8.9	+0 55	+ 4.8		35	38	9.9	9.5	10.6	+0 15	+11.4	
6	4	8.9	9.0	9.0	+0 39	+35.0		36	38	9.9		10.6	+0 48	- 8.4	
7	5	9.0	9.0	9.1	+1 31	- 4.9		37	40	10.0		10.7	+0 16	+23.9	***
8	9	9.1	9.0	9.2	+1 48	+20.9		38	41	10.0		10.8	+0 26	+ 8.4	
9	10	9.1	8.8	9.3	-0 23	+17.7		39	44	10.1		10.9	+0 39	+ 9.4	
10	10	9.1	9.2	9.3	-2 23	+23.3		40	45	10.2		10.9	+0 20	-11.6	
11	11	9.1	9.2	9.3	+1 46	- 6.7		41	46	10.2		11.0	+0 12	-11.7	
12	12	9.2	9.4	9.4	-1 28	-21.5		42	48	10.2		11.1	-0 10	- 5.1	
13	13	9.2	9.3	9.4	+0 56	+ 0.6		43	49	10.3		11.2	+0 53	- 2.7	
14	14	9.2	9.2	9.5	-1 21	-20.9		44	52	10.4		11.3	-0 44	+ 8.3	
15	15	9.3	9.3	9.5	-1 30	-10.5		45	52	10.4		11.3	-0 50	-12.6	
16	18	9.3	9.2	9.6	+1 31	+ 3.8		46	53	10.4		11.4	+0 33	-10.8	
17	18	9.3		9.6	+0 21	+24.5	***	47	56	10.5		11.6	+0 50	+15.3	
18	18	9.3	9.5	9.6	-1 13	+ 9.6		48	59	10.6		11.8	-0 26	- 4.5	
19	20	9.4	9.4	9.7	+1 0	-18.6		49	61	10.6		11.9	-0 46	- 9.3	
20	20	9.4	9.3	9.7	+1 0	+25.7		50	61	10.6		11.9	+0 10	-11.4	
21	20	9.4	9.4	9.7	+1 2	- 1.8		51	61	10.6		11.9	+0 36	- 5.1	
22	21	9.4		9.8	+1 30	+ 3.1		52	63	10.7		12.0	+0 45	+14.1	
23	21	9.4	9.4	9.8	-0 10	+ 7.2		53	65	10.8		12.1	0 0	+ 8.4	
24	22	9.5	9.5	9.8	+1 19	+ 6.9		54	66	10.8		12.2	-0 19	- 5.9	
25	22	9.5		9.8	+1 2	-21.6		55	67	10.8		12.3	-0 54	- 7.8	
26	22	9.5	9.4	9.8	-1 52	+ 9.6		56	67	10.8		12.3	-0 5	+ 7.8	
27	22	9.5	9.5	9.8	-1 57	+21.0		57	67	10.8		12.3	+0 39	+ 5.9	
28	23	9.5	9.5	9.9	-0 34	+ 8.3		58	69	10.9		12.4	-0 13	- 2.7	
29	26	9.6	9.5	10.0	-0 22	+11.2		59	71	10.9		12.5	+0 39	+ 6.1	
30	30	9.7		10.2	-0 26	+17.1		60	72	11.0		12.6	+0 30	+12.3	

\* Irregularitas periodica?

\*\*  $\Sigma 2762$ ; trpl.: AB =  $3\frac{1}{3}''$ , AC =  $58''$ .\*\*\* (17 + 37) = BD. +  $29^{\circ} 43' 12''$ , 9<sup>M</sup>.5.

$$M = 9.3 + 0.030 (G - 16.5).$$

7582

## X Cephei

 $21^h 6^m 36^s$  (1855.0)  $+ 82^\circ 29'.1$ Max. =  $2414935^d$  (7 Octobris 1899)  $+ 565^d$  E?

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1			$6^M.0$	$5^M.7$	$-13^m44^s$	$-30'.0$	76 Draconis PD. $6^M.16$ W+ „ 8.07 GW* P. 8.2 a** „ 9.1 b	28	70	$10^M.7$		$11^M.6$	$+1^m54^s$	$-18'.8$	P. 10.6 q
2			7.5	7.8	+19 25	-34.9		29	71	10.7		$11.7$	+2 42	- 9.6	„ 10.9 s
3	0	$8^M.5$	8.5	8.6	+ 1 52	- 4.8		30	77	10.9		$11.9$	+4 51	-15.6	
4	4	8.6	8.6	8.7	-15 28	+ 1.0		31	80	11.0		$12.1$	+3 1	+ 3.8	
5	13	8.9	9.3	9.1	+ 0 25	- 4.0		32	84	11.1		$12.3$	+7 20	+ 6.6	
6	16	9.0	9.2	9.2	-11 48	- 8.3		33	84	11.1		$12.3$	-4 12	+ 7.0	
7	17	9.0	9.1	9.3	- 1 20	+23.9		34	84	11.1		$12.3$	-5 33	+ 9.3	
8	21	9.2	9.3	9.4	+11 18	-18.9		35	86	11.2		$12.4$	-7 37	+ 2.5	
9	23	9.2	9.4	9.5	+10 22	-15.0							-2 5	- 3.6	„ 12.0 m
10	26	9.3	9.3	9.6	+ 6 12	+33.0		36	86	11.2		$12.4$	-1 30	- 3.6	„ 12.0 h
11	27	9.4	9.5	9.7	-13 49	-21.9		37	89	11.3		$12.6$	+3 33	+ 6.0	
12	30	9.5	9.4	9.8	+13 55	- 3.0		38	92	11.4		$12.7$	-0 25	+ 5.1	„ 12.3 k
13	30	9.5	9.5	9.8	-12 31	-22.7		39	95	11.5		$12.9$	-0 19	+ 1.2	„ 12.4 e
14	33	9.5	9.5	9.9	- 8 47	+ 9.1							-3 10	- 3.2	„ 12.7 n
15	38	9.7	9.5	10.1	- 5 27	-25.7		40	100	11.6		$13.2$	-0 10	+ 2.1	„ 12.7 g
16	42	9.8	9.5	10.3	+15 55	0.0							-2 24	- 0.4	„ 12.8 l
17	47	10.0		10.5	+ 4 44	+ 0.6		41	100	11.6		$13.2$	-1 26	+ 1.2	„ 12.9 d
18	50	10.1	9.5	10.6	+ 7 16	+11.6							-1 18	+ 2.1	„ 13.2 f
19	51	10.1	9.5	10.7	+ 9 34	+29.1							-1 0	+ 2.0	„ 14.0 w
20	52	10.1	9.4	10.7	- 2 18	+23.9							-0 4	- 2.0	„ 14.2 t
21	53	10.2	9.5	10.8	+13 4	+18.6							+0 16	+ 2.1	„ 14.9 u
22	59	10.4	9.5	11.0	+12 27	+10.2							-0 50	- 0.6	„ 15.6 x
23	59	10.4		11.0	- 0 58	-14.3	„ 10.1 r						-0 55	- 0.9	„ 17.0 y
24	62	10.4		11.2	+ 0 2	-18.9	„ 10.2 p								
25	63	10.5		11.3	+ 4 36	+ 4.0									
26	66	10.6		11.4	+ 7 37	-22.7									
27	69	10.7		11.5	+ 4 36	+ 5.2									

\*  $\Sigma$  2807 & Greenwich  $g_{y_2}$ :  $8^M.3 + 8^M.2$  ( $1^s.07$ ,  $1''.7$ ).

\*\* Parkhurst, APJ. vol. XVII, 1903 p. 50 Tab. I.

$$M = 9.3 + 0.031 (G - 25.1).$$

7590

## Z Capricorni

 $21^{\text{h}} 2^{\text{m}} 32^{\text{s}}$  (1855.0)  $-16^{\circ} 45'.6$ Max. = 2 413 525<sup>d</sup> (27 Novemb. 1895) + 356<sup>d</sup> E.

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1			7 <sup>M</sup> .0	6 <sup>M</sup> .9	-1 <sup>m</sup> 14 <sup>s</sup>	-26'.7		21	87	10 <sup>M</sup> .6		11 <sup>M</sup> .5	-0 <sup>m</sup> 30 <sup>s</sup>	+ 8'.7	
2			7.2	7.4	-0 29	+28.5		22	93	10.7	10 <sup>M</sup>	11.7	-1 25	+ 6.0	
3	0	8 <sup>M</sup> .4	8.5	8.3	+2 5	+18.9		23	97	10.8		11.9	-1 0	+13.2	
4	4	8.5	8.5	8.4	-1 27	+ 0.8		24	100	10.9		12.0	+0 26	+11.4	
5	5	8.5	8.5	8.5	+0 45	+ 8.9		25	106	11.1		12.2	-0 34	+14.4	
6	28	9.1	9.0	9.0	+0 37	-12.4		26	110	11.2		12.3	+0 13	+11.7	
7	38	9.4	9.4	9.8	-1 48	-10.5		27	114	11.3		12.5	+0 42	+11.7	
8	45	9.5	9.5	10.0	-0 58	+ 3.0		28	114	11.3		12.5	-0 9	+ 9.6	
9	48	9.6	9.7	10.1	+1 35	+ 0.9		29	117	11.3		12.6	+0 49	-12.7	
10	51	9.7	9.9	10.2	-1 24	+27.0		30	120	11.4		12.7	+0 58	-12.2	
11	57	9.8	9.5	10.5	+1 41	-24.5		31	123	11.5		12.8	+0 6	- 4.2	
12	60	9.9	9.8	10.6	+2 12	-24.5		32	128	11.6		13.0	+1 4	- 7.9	
13	60	9.9	10	10.6	+0 11	-26.9		33	129	11.6		13.0	+0 18	+ 5.1	
14	62	10.0	9.9	10.7	+0 6	+ 7.5		34	131	11.7		13.1	+0 39	+ 0.1	
15	67	10.1	9.8	10.8	+0 4	+ 3.2		35	134	11.8		13.2	-0 19	+ 5.7	
16	73	10.2	10	11.0	+0 4	-24.3		36	135	11.8		13.2	-0 39	- 5.5	
17	75	10.3	9.5	11.1	+1 24	+27.2		37	137	11.8		13.3	-0 43	- 4.8	
18	76	10.3	9.8	11.2	+0 58	-20.1		38	141	11.9		13.4	-0 46	- 5.4	
19	81	10.4	10	11.3	-1 20	+26.9		39	141	11.9		13.4	-0 17	- 3.9	
20	84	10.5		11.4	-1 1	-11.2									

$$M = 9.0 + 0.025 (G - 23.4).$$

7594

## RS Aquarii

 $21^{\text{h}} 3^{\text{m}} 22^{\text{s}}$  (1855.0) —  $4^{\circ} 36'.9$ Max. =  $2414883^{\text{d}}$  (16 Augusti 1899) +  $214^{\text{d}}$  E?

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1	0	7 <sup>M</sup> .8	7 <sup>M</sup> .8	8 <sup>M</sup> .1	-1 <sup>m</sup> 39 <sup>s</sup>	+ 8'.2		23	55	9 <sup>M</sup> .7	9 <sup>M</sup> .7	10 <sup>M</sup> .7	+0 <sup>m</sup> 27 <sup>s</sup>	+ 4'.2	
2	4	8.0	7.8	8.2	+2 15	-15.2		24	57	9.7	9.6	10.8	+1 19	-28.7	
3	8	8.1	8.3	8.4	+1 21	-32.6		25	59	9.8	9.7	10.9	+1 14	+14.4	
4	9	8.1	8.0	8.5	-1 54	+13.6		26	61	9.9	9.5	11.0	-1 21	- 2.9	
5	11	8.2	8.0	8.6	+0 18	- 6.9		27	66	10.0		11.3	-0 49	+11.7	
6	14	8.3	8.3	8.7	+1 37	-16.9		28	67	10.1		11.3	-0 33	+11.8	
7	19	8.5	8.5	8.9	+0 31	+37.3		29	69	10.1		11.4	+0 34	- 0.6	
8	22	8.6	8.7	9.0	+2 16	+ 0.9		30	72	10.2		11.6	-0 16	- 7.8	
9	24	8.6	9.0	9.1	+0 39	+31.4		31	75	10.3		11.8	-0 12	-16.2	
10	26	8.7	8.8	9.2	-0 31	+ 7.1		32	75	10.3		11.8	+0 54	+14.7	
11	28	8.8	8.9	9.3	-0 41	+35.9		33	79	10.4		11.9	+0 17	-14.3	
12	30	8.8	9.0	9.4	+2 0	+ 8.1		34	80	10.5		12.0	+0 49	+12.8	
13	36	9.0	9.4	9.7	+2 0	+36.6		35	81	10.5		12.1	-0 58	+ 9.9	
14	41	9.2	9.3	10.0	+0 50	+ 4.8		36	84	10.6		12.2	-0 6	+12.9	
15	42	9.2	9.4	10.0	+1 16	+21.4		37	87	10.7		12.4	-0 17	+13.2	
16	44	9.3	9.1	10.1	-1 24	- 3.6		38	90	10.8		12.6	-0 35	+ 6.2	
17	46	9.4	9.4	10.2	-1 25	-26.3		39	91	10.8		12.7	+0 14	- 3.1	
18	48	9.4	9.7	10.3	-0 4	- 4.2		40	94	10.9		12.8	+0 1	- 2.7	
19	49	9.5	9.3	10.4	-0 35	+15.7		41	98	11.1		13.0	+0 7	- 3.4	
20	51	9.5	9.5	10.5	-1 16	+11.4		42	104	11.3		13.3	+0 4	- 2.1	
21	53	9.6	9.5	10.6	+0 30	+ 2.5									
22	55	9.7	9.5	10.7	-0 15	+11.3									

$$M = 9.1 + 0.033 (G - 38.1).$$

7619

## RR Aquarii

 $21^{\text{h}} 7^{\text{m}} 28^{\text{s}}$  (1855.0) —  $3^{\circ} 29'.7$ Max. =  $2415128^{\text{d}}$  (18 Aprilis 1900) +  $190^{\text{d}}.5$  E?

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1			$7^{\text{M}}.0$	$7^{\text{M}}.2$	$+0^{\text{m}} 3^{\text{s}}$	$+19'.4$		19	64	$10^{\text{M}}.0$	$10^{\text{M}}$	$11^{\text{M}}.0$	$-1^{\text{m}} 32^{\text{s}}$	$+15'.9$	
2	0	$8^{\text{M}}.3$	8.5	8.4	$+3 36$	$-15.6$		20	65	10.0		11.1	$-0 54$	$+ 6.1$	
3	1	8.3	8.7	8.4	$+0 35$	$+21.0$		21	71	10.2		11.3	$-0 30$	$+12.3$	
4	6	8.4	8.3	8.6	$-0 56$	$+ 8.8$		22	72	10.2		11.4	$-0 10$	$+ 9.9$	
5	16	8.7	8.9	9.0	$-0 30$	$+37.9$		23	79	10.4		11.7	$+0 26$	$- 6.6$	
6	29	9.1	9.4	9.5	$+3 8$	$-23.0$		24	84	10.6		11.9	$-0 51$	$- 8.7$	
7	32	9.2	9.1	9.6	$-0 48$	$-32.1$		25	84	10.6		11.9	$-0 21$	$- 3.3$	
8	40	9.4	9.1	10.0	$-0 34$	$- 7.9$		26	89	10.7		12.2	$-0 7$	$+ 8.3$	
9	43	9.4	9.6	10.1	$+1 23$	$+14.2$		27	90	10.7		12.3	$+0 4$	$-12.9$	
10	45	9.5	9.5	10.2	$+1 3$	$-23.0$		28	91	10.7		12.3	$+0 2$	$+13.8$	
11	49	9.6	9.6	10.3	$-1 19$	$-18.6$		29	92	10.8		12.4	$-0 18$	$+ 7.4$	
12	50	9.6	9.7	10.4	$+0 28$	$-19.3$		30	93	10.8		12.4	$+0 5$	$-12.6$	
13	52	9.7	9.6	10.5	$-1 15$	$-26.7$		31	94	10.8		12.5	$+0 7$	$+ 5.3$	
14	53	9.7	9.6	10.5	$-1 27$	$+31.1$		32	97	10.9		12.6	$0 0$	$-12.7$	
15	54	9.7	9.5	10.6	$-0 8$	$- 8.8$		33	101	11.0		12.8	$+0 28$	$-10.3$	
16	59	9.9	9.9	10.7	$-1 52$	$- 0.2$		34	103	11.1		13.0	$+0 40$	$- 6.3$	dpl.
17	60	9.9	10	10.8	$-1 59$	$-22.0$		35	123	11.6		14.0	$-0 1$	$+ 0.7$	
18	61	9.9	9.8	10.9	$-0 28$	$+18.1$									

$$M = 9.1 + 0.027 (G - 30.1).$$

## SS Cygni

 $21^{\text{h}} 37^{\text{m}} 1^{\text{s}}$  (1855.0)  $+42^{\circ} 55'.7$ 

Typus Antalgol. Periodus irregularis.

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1			5 <sup>M</sup> .2	5 <sup>M</sup> .3	-2 <sup>m</sup> 31 <sup>s</sup>	-18'.6	75 Cygni *	38	100	9 <sup>M</sup> .8	9 <sup>M</sup> .5	10 <sup>M</sup> .4	-2 <sup>m</sup> 39 <sup>s</sup>	+12'.7	
2	0	7 <sup>M</sup> .0	6.5	6.6	+3 32	-32.3	PD. 5 <sup>M</sup> .20 RG—	39	101	9.8	9.3	10.4	+1 53	+ 9.9	
3	22	7.6	8.5	7.8	+2 1	- 9.6	„ 6.73 GW	40	102	9.8		10.4	+1 1	-11.7	
4	41	8.1	8.3	8.5	+0 27	- 0.2	P. 8.01**	41	104	9.9	9.5	10.5	-0 38	+19.5	
5	49	8.3	8.2	8.6	+2 42	+20.9	„ 8.5 b	42	106	9.9		10.6	-0 35	- 0.6	P. 11 <sup>M</sup> .3 e
6	55	8.5	8.6	8.8	+1 39	+12.9	„ 8.9 w	43	109	10.0		10.7	-0 15	- 1.1	„ 10.9 d
7	57	8.6	8.8	8.9	+2 7	-30.6		44	110	10.0		10.8	-0 8	+ 7.8	„ 10.9 n
8	58	8.6	8.5	8.9	+2 30	-15.6		45	110	10.0		10.8	+0 9	+13.5	
9	58	8.6	8.3	8.9	+3 13	-23.3		46	113	10.1		10.9	+1 23	+ 0.6	
10	61	8.7	8.5	9.0	+2 33	-18.1		47	115	10.2		11.0	+0 18	+ 6.3	„ 10.9 p
11	63	8.7	8.8	9.1	+0 54	+29.3		48	117	10.2		11.1	-0 53	+11.8	
12	66	8.8	9.0	9.2	-2 20	+21.9		49	119	10.3		11.2	+0 52	+ 0.9	
13	67	8.8	8.9	9.2	+1 36	+ 7.1		50	122	10.4		11.3	+0 38	+ 0.9	
14	68	8.9	8.7	9.2	-0 56	+24.2	„ 9.2 z	51	122	10.4		11.3	+1 7	- 8.1	
15	70	8.9	9.1	9.3	-1 5	-29.3		52	124	10.4		11.4	+1 16	+ 5.9	
16	70	8.9	9.0	9.3	+1 23	+ 7.1		53	125	10.5		11.4	+0 47	-12.5	
17	72	9.0	9.2	9.4	+2 3	+10.5		54	126	10.5		11.5	-0 51	- 8.9	
18	75	9.1	9.3	9.5	+1 55	+11.1		55	126	10.5	9.5	11.5	+0 19	+16.0	
19	76	9.1	9.2	9.5	0 0	+ 8.1	„ 9.4 c	56	130	10.6		11.7	-1 16	+ 8.7	
20	78	9.2	9.0	9.6	+1 10	-25.2		57	130	10.6		11.7	-0 7	+ 3.9	„ 11.8 m
21	79	9.2	9.0	9.6	-1 6	-19.8		58	131	10.6		11.7	+1 6	+ 5.9	
22	81	9.2	9.2	9.7	-0 21	- 0.9	„ 9.6 a	59	134	10.7		11.8	-0 46	- 5.7	
23	82	9.3	9.4	9.7	+0 57	-29.1		60	134	10.7		11.8	+1 16	+ 9.3	
24	83	9.3	9.3	9.8	+2 52	+10.6		61	137	10.8		12.0	-0 31	- 2.6	„ 12.0 g
25	84	9.3	9.5	9.8	+2 51	+ 6.3		62	137	10.8		12.0	-0 5	- 5.7	„ 12.0 q
26	84	9.3	8.8	9.8	-0 8	-19.8		63	137	10.8		12.0	-0 18	-13.5	
27	85	9.3	9.3	9.8	+2 52	+16.5		64	137	10.8		12.0	+0 45	- 6.9	
28	85	9.3	9.5	9.8	-2 51	+15.0		65	137	10.8		12.0	+1 6	+ 8.4	
29	88	9.4	9.0	9.9	-2 17	+18.3		66	140	10.9		12.1	-0 9	- 0.6	„ 12.4 h
30	88	9.4	9.5	9.9	-2 48	+ 3.4		67	141	10.9		12.2	+1 23	- 0.6	
31	90	9.5	9.4	10.0	+0 39	-25.1		68	144	11.0		12.3	+0 4	+ 5.7	„ 12.1 o
32	93	9.6		10.1	-0 27	+12.7		69	145	11.0		12.4	-0 11	+10.8	
33	93	9.6	9.5	10.1	-1 30	+29.1		70	146	11.1		12.5	+0 5	+ 9.5	
34	94	9.6	9.4	10.1	+1 11	+12.2		71	147	11.1		12.5	-1 6	+ 4.2	
35	96	9.7	9.5	10.2	-1 11	-11.7		72	150	11.2		12.7	-1 20	+11.7	
36	96	9.7	9.5	10.2	-0 51	-11.1		73	155	11.3		13.0	+0 3	- 0.6	„ 13.1 k
37	98	9.7	9.5	10.3	-0 11	+19.0					8.4		-3 13	-19.0	BD. + 42° 4172 ***

\* OZ<sup>2</sup> 221, 54<sup>1</sup>''.

\*\* Parkhurst and Daniel, ApJ. vol. XII, 1900, p. 260 (magnitudines in scala Harvard, et litterae).

\*\*\* Per errorem designata UU Cygni (vide Pickering, Cat. II 1907 no. 213542).

$$M = 9.0 + 0.028 (G - 72.6).$$

7896

## V Pegasi

 $21^h 53^m 47^s$  (1855.0) +  $5^0 25'.5$ Max. =  $2413353^d$  (8 Junii 1895) +  $303^d$  E.

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1			$6^M.0$	$6^M.0$	$-0^m 54^s$	$+35'.9$	PD. $6^M.24$ W, 18 Pegasi	26	57	$10^M.0$	$9^M.5$	$11^M.0$	$+0^m 53^s$	$+18'.0$	
2	0	$7^M.8$	$7^M.0$	7.8	-3 1	-10.5	" 7.55 GW, sp } * " 8.05 GW, nf }	27	59	10.1		11.1	+0 44	- 8.1	
3	3	7.9		8.0	-3 1	-10.3		28	59	10.1		11.1	+1 4	+20.6	
4	3	7.9		8.0	-2 26	- 6.0		29	59	10.1	(9.5)	11.1	-1 42	+12.6	dpl.
5	10	8.2	8.3	8.4	-0 29	- 8.7		30	60	10.1		11.2	+0 39	-24.4	
6	15	8.4	8.4	8.6	0 0	-17.3		31	62	10.2		11.3	-0 10	+13.2	
7	18	8.5	9.2	8.8	-2 31	- 7.2		32	65	10.3		11.5	-0 50	0.0	
8	27	8.8	8.8	9.3	-0 17	+12.6		33	66	10.3		11.5	-0 3	- 8.9	
9	33	9.1	9.3	9.7	-0 11	-15.7		34	69	10.4		11.7	-0 15	+23.6	**
10	35	9.2	9.2	9.8	-0 46	+21.5		35	71	10.5		11.8	-0 16	- 0.3	
11	35	9.2	9.2	9.8	-2 0	+24.5		36	73	10.6		11.9	-0 53	-11.7	
12	36	9.2	9.3	9.8	-0 34	+25.1		37	73	10.6		11.9	-0 10	+ 8.7	
13	39	9.3	(9.4)	10.0	-1 7	+22.4	dpl.	38	74	10.6		12.0	+0 36	+11.1	
14	39	9.3	9.5	10.0	+1 11	+30.0		39	77	10.8		12.1	+0 45	+ 8.7	
15	41	9.4	9.3	10.1	-0 49	- 2.2		40	77	10.8		12.1	-0 15	+ 6.6	
16	45	9.5	9.4	10.4	+1 35	-18.9		41	79	10.8		12.2	-0 4	+ 6.0	
17	47	9.6	9.5	10.5	+1 1	+33.8		42	82	10.9		12.4	+0 41	+13.5	
18	48	9.6	$9^M.0$	10.5	-1 33	+ 9.8		43	86	11.1		12.6	+0 18	+ 6.6	
19	49	9.7		10.6	-1 32	+ 9.9		44	90	11.2		12.8	-0 54	+12.9	
20	49	9.7	9.5	10.6	+0 15	+ 3.2		45	(91)	11.3	9.5	12.9	-0 34	- 0.6	var. ? ***
21	50	9.7		10.6	+0 52	+10.1		46	93	11.4		13.0	+0 5	+10.8	
22	(51)	9.8		10.7	-0 29	- 2.9	dpl.						+0 7	- 2.5	
23	51	9.8		10.7	+0 6	+ 4.2									
24	54	9.9	9.5	10.8	+1 42	- 4.2									
25	55	9.9	9.5	10.9	+0 32	-27.2									

\* (2 + 3) =  $\Sigma 2848$ , HP. =  $6^M.65$ \*\* 34 = BD. +  $5^0 4925$ ,  $9^M.5$  (-19<sup>s</sup>, +26'.0)?\*\*\* Vix apparens 8 Aug. 1899 (caelo sereno); invisibilis 2 Octobr. 1899, Sept. 1901, Aug. 1902;  $11^M.3$  die 15 Septembr. 1903.

$$M = 8.8 + 0.038 (G - 25.7).$$

7961 &amp; 7964

## Y &amp; RS Pegasi

 $22^h 4^m 54^s$  (1855.0) +  $13^\circ 44'.8$ Y Max. =  $2415324^d$  (31 Oct. 1900) +  $203^d 3$  E.RS Max. =  $2416279^d$  (13 Junii 1903) +  $436^d$  E.

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1			$6^M.2$	$6^M.4$	$-1^m 35^s$	$+10'.5$	$\Sigma 2869, 21\frac{1}{2}''$ PD. $6^M.60$ WG	23	69	$10^M.2$		$11^M.6$	$-0^m 30^s$	$+12'.6$	G. n. 2
2	0	$8^M.3$	8.2	8.3	-1 37	-42.3		24	71	10.2		11.7	+0 36	-6.1	„ n
3	1	8.3	8.3	8.4	+0 51	+33.0		25	72	10.3		11.7	+0 12	-12.0	„ m
4	7	8.5	8.8	8.7	-2 1	-40.6		26	76	10.4	$9^M.5$	11.9	-1 29	-25.5	BD. $\Delta\alpha = -1^m 38^s$
5	7	8.5	8.5	8.7	+0 48	-33.3		27	78	10.4		12.0	-0 56	-8.4	G. h
6	11	8.6	8.7	8.9	-1 8	-30.6		28	81	10.5		12.1	-0 23	+12.0	
7	15	8.7	9.1	9.0	+1 55	-34.9		29	81	10.5		12.1	+0 53	+4.8	
8	31	9.2	9.5	9.8	-0 14	-1.2	G. n. 5 a *	30	83	10.6		12.2	-0 20	+10.7	
9	32	9.2	9.2	9.9	-1 43	+15.0		31	85	10.6		12.3	+0 20	+12.3	„ n. 7 p
10	33	9.2	9.3	9.3	+0 25	+23.1		32	88	10.7		12.4	-0 22	+4.5	„ g
11	38	9.3		10.1	-1 52	+15.4		33	91	10.8		12.5	+0 45	+10.6	
12	41	9.4	9.5	10.3	+2 10	-9.7		34	93	10.8		12.6	-0 39	+5.7	
13	46	9.6		10.5	-0 19	-29.6	BD. $\Delta\delta = -19'.8$ G. n. 10	35	94	10.9		12.7	-0 44	-4.2	„ r
14	48	9.6	9.3	10.6	-0 19	-21.9		36	102	11.1		13.0	-0 27	-2.7	
15	51	9.7	9.5	10.7	+0 59	-6.9		37	107	11.2		13.2	-0 24	-2.7	„ k
16	52	9.7	9.5	10.8	+1 12	+4.5		38	107	11.2		13.2	+1 52	+3.6	
17	52	9.7	9.5	10.8	-0 40	+4.2							+0 18	+4.4	„ d 11 <sup>M</sup> .2
18	55	9.8	9.3	10.9	+0 15	+6.9	„ n. 1 c						+0 14	+6.1	„ e 11.7
19	58	9.9		11.1	-0 16	+6.0	„ n. 6 b	Y RS			var. var.		-0 19	-5.6	
20	61	10.0		11.2	+0 50	+7.8	„ n. 4 f						+0 19	+5.6	**
21	63	10.0		11.3	+1 56	+1.8	„ n. 9								
22	67	10.1		11.5	+0 40	-9.9									

\* Graff AN. 3796 (numeri); Hamburg. Mitt. 8 p. 33 (litterae).

\*\* ? = BD. +  $13^\circ 48' 6''$  a (+  $14^\circ$ , +  $3'.3$ ),  $9^M.5$  observata Bonnae 26 Aug. 1854. Confer similes errores in  $\Delta\alpha$  et  $\Delta\delta$  stellarum 26 et 14.

$$M = 9.0 + 0.027 (G - 25.3).$$



7999

## X Aquarii

 $22^{\text{h}} 10^{\text{m}} 40^{\text{s}}$  (1855.0)  $-21^{\circ} 37'.4^*$ Max. =  $2413365^{\text{d}}$  (20 Iunii 1895)  $+315^{\text{d}}$  E.

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1			$5^{\text{M}}.7$	$5^{\text{M}}.4$	$+2^{\text{m}}56^{\text{s}}$	$-41'.4$	Fl. 47 UA. 135, $5^{\text{M}}.6$ , r	18	116	$9^{\text{M}}.9$		10.7	$-0^{\text{m}}21^{\text{s}}$	$-0'.5$	
2	0	$7^{\text{M}}.8$	7.7	7.2	-0 5	+ 9.8		19	122	10.0	$9^{\text{M}}.8$	10.9	+1 39	+23.8	
3	14	8.0	8.0	7.5	-4 34	-30.2		20	124	10.0	9.7	11.0	-0 7	-15.8	
4	42	8.5	8.6	8.3	-3 0	-22.1		21	124	10.0	9.8	11.0	-1 20	-29.8	
5	48	8.6	8.6	8.5	-0 13	- 5.9		22	129	10.1	9.8	11.1	+1 10	+ 2.9	
6	54	8.7	8.8	8.7	-0 40	+24.5		23	130	10.1		11.2	-0 48	+18.9	
7	59	8.8	9.0	8.8	-0 7	+24.6		24	134	10.2		11.4	-0 49	- 8.3	
8	62	8.9	9.0	8.9	-0 1	+21.0		25	143	10.3	10	11.6	+1 11	-11.9	
9	63	8.9	9.2	9.0	-2 31	-12.9		26	150	10.5		11.9	-0 37	-12.9	
10	63	8.9	8.8	9.0	-0 26	-31.5		27	151	10.5	9.9	11.9	-1 38	-14.4	
11	69	9.0	8.9	9.1	+1 18	-24.8		28	153	10.5		12.0	+1 12	+14.7	
12	69	9.0	9.1	9.1	-1 4	+26.2		29	175	10.9		12.8	-0 40	+12.0	
13	70	9.0	9.1	9.2	-2 39	-23.3		30	180	11.0		13.0	+0 56	- 2.4	
14	83	9.3	9.3	9.6	-0 25	+18.2		31	181	11.0		13.0	+0 42	+ 8.1	
15	85	9.3	9.3	9.7	-0 7	+20.2		32	182	11.0		13.1	-0 3	-10.2	
16	99	9.5	9.5	10.2	+0 46	+ 6.2		33	192	11.2		13.4	+0 12	- 3.1	
17	104	9.6	9.5	10.3	+0 49	-12.8							-0 2	- 4.3	

Hartwig 13<sup>M</sup>\* In Charta lege:  $-21^{\circ} 24'.0$ .

$$M = 8.9 + 0.018 (G - 63.0).$$

8026

## RT Aquarii

 $22^{\text{h}} 15^{\text{m}} 13^{\text{s}}$  (1855.0) —  $22^{\circ} 47'.2$ Max. =  $2\ 416\ 018^{\text{d}}$  (25 Septembris 1902) +  $241^{\text{d}}$  E?

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1			$5^{\text{M}}.7$	$5^{\text{M}}.4$	$-1^{\text{m}}37^{\text{s}}$	$+27'.6$	CoD. $5^{\text{M}}.6$	19	51	$10^{\text{M}}.1$		$11^{\text{M}}.6$	$+0^{\text{m}}19^{\text{s}}$	$-30'.6$	CoD. $10^{\text{M}}$
2			7.5	7.4	+1 4	$+27'.5$	„ 7.5	20	54	10.2		$11.7$	-0 6	$+17.9$	„ 10
3	0	$8^{\text{M}}.5$	8.8	8.9	+2 26	$+27'.2$	„ 8.5	21	56	10.2		$11.8$	-0 18	$+23.3$	„ 10
4	3	8.6	8.5	9.0	+1 9	$-12.2$	„ 8.5	22	59	10.3		$12.0$	+0 44	$+4.8$	„ 10
5	6	8.7	8.8	9.2	-2 3	$+25.4$	„ 8.8	23	61	10.4		$12.1$	+0 28	$+11.9$	„ 10
6	14	9.0		9.6	-2 7	$-25.4$	„ 8.7	24	63	10.4		$12.2$	+0 51	$+15.6$	„ 10
7	16	9.0	9.0	9.7	-0 29	$-6.6$	„ 9.0	25	67	10.5		$12.4$	+0 39	$-13.9$	„ 10
8	19	9.1	9.0	9.9	-2 11	$+24.5$	„ 9.2	26	68	10.6		$12.4$	+0 46	$-3.9$	„ 10
9	21	9.2	9.0	10.0	+0 42	$+8.9$	„ 9.0	27	68	10.6		$12.4$	-0 32	$-2.7$	„ 10
10	27	9.3		10.3	-2 11	$-6.7$	„ 9.6	28	72	10.7		$12.6$	+0 20	$-1.5$	„ 10
11	29	9.4		10.4	+1 19	$-27.2$	„ 9.4	29	72	10.7		$12.6$	+0 22	$-13.2$	„ 10
12	30	9.4		10.5	+0 21	$-29.8$	„ 9.4	30	73	10.7		$12.7$	-0 48	$-3.1$	
13	33	9.5		10.6	+1 18	$-18.6$	„ 9.6	31	75	10.8		$12.8$	+0 59	$+11.4$	
14	36	9.6		10.8	+0 38	$-15.1$	„ 9.6	32	80	10.9		$13.0$	+0 14	$+5.7$	
15	39	9.7	9.7	10.9	+1 40	$-8.3$	„ 9.8	33	87	11.1		$13.3$	+0 6	$+6.6$	
16	41	9.8		11.0	+0 58	$-28.1$	„ 9.5	34	90	11.2		$13.5$	+0 18	$-3.3$	
17	43	9.8	9.9	11.1	-1 22	$+8.2$	„ 9.6	35	90	11.2		$13.5$	-0 10	$-0.7$	
18	51	10.1		11.6	+0 30	$-3.3$	„ 9.9								

$$M = 9.4 + 0.030 (G - 28.7).$$

## V Cassiopeiae

23<sup>h</sup> 5<sup>m</sup> 27<sup>s</sup> (1855.0) + 58° 54'.5Max. = 2 412 789<sup>d</sup> (21 Novembris 1893) + 231<sup>d</sup>.5 E.

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1			5 <sup>M</sup> .3	4 <sup>M</sup> .9	-5 <sup>m</sup> 0 <sup>s</sup>	-17'.1	PD. 4 <sup>M</sup> .97 W+, 1 Cass.	41	93	10 <sup>M</sup> .4		10 <sup>M</sup> .8	+0 <sup>m</sup> 32 <sup>s</sup>	- 6'.1	
2			6.1	5.6	-1 56	-21.8	„ 5.82 GW+, 2 „	42	93	10.4		10.8	+0 45	0.0	
3			6.5	6.3	-4 26	+ 2.1	„ 6.64 GW- *	43	96	10.5		10.9	-0 3	- 2.9	
4	0	7 <sup>M</sup> .7	7.3	7.7	-4 13	-42.5	„ 7.31 WG	44	97	10.5		10.9	-0 36	+ 8.3	
5	18	8.2	8.3	8.3	-1 49	-24.5		45	100	10.6		11.0	-1 55	+ 0.1	
6	25	8.4	8.5	8.6	-2 37	+27.9		46	101	10.6		11.0	+1 55	- 4.8	
7	25	8.4	8.5	8.6	+2 16	+ 6.9		47	102	10.7		11.1	+0 39	- 6.2	
8	30	8.6	8.4	8.8	+2 20	-19.9		48	102	10.7		11.1	+0 41	-10.8	
9	32	8.6	8.8	8.9	-0 47	+30.7		49	103	10.7		11.1	+0 57	- 0.4	
10	33	8.7	8.6	9.0	+1 57	-24.6		50	106	10.8		11.2	-1 40	+ 0.1	
11	37	8.8	9.2	9.1	+3 58	+12.9		51	108	10.8		11.2	-0 8	+ 0.7	
12	38	8.8	9.1	9.2	-2 15	+28.3		52	110	10.9		11.3	+1 36	+12.4	
13	41	8.9	9.5	9.3	+0 30	+12.2		53	110	10.9		11.3	-0 28	- 9.9	
14	45	9.0	8.9	9.4	-0 46	+26.6		54	111	10.9		11.3	+1 53	+12.0	
15	46	9.0	9.0	9.5	-0 41	+16.0		55	113	11.0		11.4	-0 39	- 5.4	
16	48	9.1	9.2	9.5	+2 52	+ 8.2		56	113	11.0		11.4	+1 46	+ 3.2	
17	51	9.2	9.1	9.6	-1 55	+15.7		57	115	11.0		11.4	+1 43	- 5.7	
18	52	9.2	9.3	9.6	+3 19	+24.2		58	117	11.1		11.5	-0 9	+14.9	
19	54	9.3	9.4	9.7	-1 55	- 3.0		59	120	11.2		11.6	-0 13	+ 8.7	
20	55	9.3	9.3	9.7	-1 38	-29.9		60	120	11.2		11.6	+1 54	- 0.3	
21	56	9.3	9.5	9.8	-2 19	+ 6.7		61	123	11.3		11.7	-1 39	- 8.7	
22	59	9.4		9.9	+0 41	+ 8.9		62	126	11.4	9 <sup>M</sup> .5	11.8	-0 23	-25.5	
23	60	9.5	9.4	9.9	-2 23	+27.9		63	126	11.4		11.8	+1 23	- 6.6	
24	61	9.5		9.9	+1 41	-21.0		64	128	11.4		11.8	-0 45	+ 1.3	
25	62	9.5	9.5	10.0	+0 14	+10.9		65	129	11.5		11.8	+0 34	- 3.8	
26	64	9.6	9.5	10.0	-1 4	+12.9		66	132	11.5		11.9	-1 23	- 0.1	
27	67	9.7	9.4	10.1	+2 36	-18.6		67	133	11.6		12.0	+1 28	- 3.9	
28	67	9.7	9.5	10.1	+3 27	+11.5		68	134	11.6		12.0	-1 2	-11.1	
29	68	9.7	9.5	10.1	+0 48	+ 3.2		69	135	11.6		12.0	-0 47	- 1.5	
30	71	9.8	9.5	10.2	+0 5	+14.3		70	136	11.7		12.1	+0 7	-12.0	
31	73	9.8	9.5	10.3	-1 36	+11.7		71	137	11.7		12.1	-1 29	- 0.9	
32	74	9.9	9.5	10.3	-0 3	- 5.9		72	140	11.8		12.2	+1 12	-11.8	
33	75	9.9		10.3	-2 2	-12.8		73	142	11.8		12.3	-0 58	- 1.0	
34	76	9.9		10.4	-0 31	+ 3.0		74	143	11.9		12.3	+0 9	-11.7	
35	77	9.9	9.5	10.4	+3 44	-14.1		75	147	12.0		12.4	-0 24	+ 5.3	
36	80	10.0		10.5	-0 20	-13.5		76	149	12.0		12.5	+1 8	-11.1	
37	81	10.1	9.5	10.5	-0 26	-29.4		77	152	12.1		12.6	-1 5	-10.5	
38	84	10.2		10.6	-1 1	+ 9.7									
39	86	10.2		10.6	+0 8	+ 8.2									
40	90	10.3		10.7	+0 34	+ 4.7									

\* PD. Stella Fund. Nr. 142.

$$M = 8.9 + 0.029 (G - 40.9).$$

8584

## RR Cassiopeiae

 $23^h 48^m 32^s$  (1855.0) +  $52^\circ 55'.1$ Max. =  $2415051^d$  (31 Januarii 1900) +  $309^d$  E.

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1	0	7 <sup>M</sup> .4	7 <sup>M</sup> .3	7 <sup>M</sup> .0	+3 <sup>m</sup> 21 <sup>s</sup>	- 9'.6	PD. 7 <sup>M</sup> .24 W+	38	85	10 <sup>M</sup> .8	11 <sup>M</sup> .0	-1 <sup>m</sup> 34 <sup>s</sup>	- 6'.6		*
2	5	7.6	7.7	7.3	-3 7	+32.8		39	86	10.8	11.0	-0 36	+ 0.6	G. b	
3	7	7.7	7.5	7.4	+0 41	- 0.7	„ 7.70 GW	40	88	10.9	11.1	-1 6	- 7.9	dpl.	
4	8	7.7	8.2	7.5	+0 44	+14.2	*								
5	10	7.8	7.5	7.6	+2 50	-20.6	„ 7.68 WG	41	88	10.9	11.1	+1 21	- 5.1		
								42	89	10.9	11.2	+0 49	-12.0		
6	15	8.0	8.6	7.9	-2 57	+29.8		43	92	11.1	11.3	-1 12	- 5.3		
7	22	8.3	8.2	8.3	+3 10	-28.6		44	92	11.1	11.3	-0 26	- 0.3	G. e	
8	22	8.3	7.5	8.3	-1 0	-13.9	„ 8.39 W+ *	45	93	11.1	11.3	-0 48	- 3.0	dpl.	
9	27	8.5	9.0	8.5	+0 42	+20.8									
10	29	8.5	8.2	8.6	+2 58	- 3.1		46	93	11.1	11.3	-1 7	0.0		
								47	94	11.1	11.4	+1 13	+ 6.9		
11	33	8.7	8.8	8.8	+1 17	+ 1.1		48	94	11.1	11.4	-0 9	+ 6.0		
12	37	8.9	9.3	8.9	+2 34	+25.2		49	95	11.2	11.4	-0 6	- 1.8	G. c	
13	39	8.9	9.0	9.0	-2 46	+33.4		50	95	11.2	11.4	+0 48	- 2.1		
14	39	8.9	9.0	9.0	+3 21	-14.3									
15	40	9.0	8.7	9.1	+2 11	-33.0		51	96	11.2	11.5	-0 48	- 7.8		
								52	97	11.3	11.5	+0 39	-12.3		
16	42	9.1	9.1	9.2	+2 11	+14.8		53	97	11.3	11.5	+0 28	- 0.6		
17	44	9.1	9.0	9.2	+1 59	- 8.7		54	99	11.3	11.6	-0 26	-12.0		
18	47	9.3	9.1	9.4	+2 58	-22.6		55	101	11.4	11.7	-0 9	+ 7.2		
19	47	9.3	9.1	9.4	-1 12	- 0.9									
20	47	9.3	9.1	9.4	-3 3	-15.2		56	102	11.5	11.8	+0 20	+ 2.8	dpl.	
								57	103	11.5	11.8	+0 24	+10.8		
21	50	9.4	9.3	9.5	-2 12	+ 0.7		58	103	11.5	11.8	-0 26	-10.8		
22	52	9.5	9.2	9.6	+2 4	-23.8		59	103	11.5	11.8	0 0	-10.5		
23	53	9.5	9.5	9.6	-2 8	- 8.3		60	103	11.5	11.8	-1 24	+ 9.1		
24	54	9.5	9.2	9.7	-1 1	+24.5									
25	57	9.7	9.4	9.8	+0 53	+21.2		61	103	11.5	11.8	-0 39	+ 9.9		
								62	103	11.5	11.8	-0 47	+11.1	***	
26	58	9.7	9.4	9.8	-1 32	+ 5.7		63	104	11.5	11.9	-0 54	+12.3		
27	63	9.9	9.5	10.1	-1 37	- 1.0		64	106	11.6	12.0	-1 6	+10.0		
28	64	9.9	9.5	10.2	-1 14	+25.2		65	108	11.7	12.1	+0 17	+ 7.2		
29	64	9.9	9.5	10.2	+1 52	+ 2.3									
30	68	10.1		10.2	-0 49	+ 6.2	G. a **	66	109	11.7	12.1	-0 38	+ 3.0		
								67	110	11.8	12.2	-0 41	+ 3.9		
31	71	10.2		10.4	-0 43	+11.1	***	68	111	11.8	12.3	-0 44	+ 2.6		
32	72	10.3	9.5	10.4	-2 9	-11.3		69	131	12.6	13.6	-0 6	- 1.2	G. d 11 <sup>M</sup> .6	
33	74	10.3	9.5	10.5	-2 22	+ 2.3							-0 20	0.0	„ f 11.6
34	77	10.5		10.6	+0 39	-10.4									
35	80	10.6		10.7	-0 33	- 8.4							-0 17	+ 2.6	„ g 11.8
													+0 3	- 2.5	„ h 12.7
36	83	10.7		10.9	+0 55	+ 3.3	G. k								
37	85	10.8		11.0	+1 15	- 1.2									

\* Magnitudines stellarum no. 4 (BD. +  $53^\circ 3256$ ) et no. 8 (BD. +  $52^\circ 3559$ ) nunc (1902—05) sunt inversae earum quae fuerunt annis 1857 et 59. Quas differentias D. Deichmüller tum examinatis Bonnae manuscriptis tum stellis in caelo observatis confirmavit, stellamque no. 8 aliorum observationibus commendat (AN. 3845, 1902).

\*\* Graff, Hamburg. Mitt. 8 p. 53.

\*\*\* (31 + 62) = BD. +  $53^\circ 3252$ , 9<sup>M</sup>.5.

$$M = 8.7 + 0.040 (G - 33.1).$$

8610

## Z Pegasi

 $23^{\text{h}} 52^{\text{m}} 42^{\text{s}}$  (1855.0) +  $25^{\circ} 4'.9$ 

Elementa Variationis ignota.

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1			$4^{\text{M}}.3$	$4^{\text{M}}.8$	$-2^{\text{m}}20^{\text{s}}$	$-44'.5$	$\psi$ Pegasi PD. $4^{\text{M}}.80$ G—	16	64	$10^{\text{M}}.1$		$11^{\text{M}}.3$	$-0^{\text{m}} 9^{\text{s}}$	+ 3'.0	
2	0	$7^{\text{M}}.8$	7.8	8.0	+0 23	- 2.4		17	69	10.3		11.6	-0 40	-11.3	
3	13	8.3	8.5	8.6	+1 46	+13.8		18	73	10.4		11.9	-0 54	-10.8	
4	17	8.4	8.5	8.8	-1 11	+13.8		19	73	10.4		11.9	+0 39	+ 6.5	
5	20	8.5	9.0	8.9	-1 57	- 8.3		20	75	10.5		12.0	-0 18	-10.2	
6	22	8.6	9.0	9.0	-0 14	-13.5		21	78	10.6		12.2	-1 5	-10.8	
7	28	8.8	8.5	9.3	-1 14	-24.5		22	78	10.6		12.2	-0 50	+ 2.9	
8	31	8.9	8.9	9.5	-1 7	-18.2		23	78	10.6		12.2	+0 51	- 0.8	
9	39	9.2	9.3	9.9	+1 26	-15.8		24	80	10.7		12.3	+0 45	+ 8.7	
10	41	9.3	9.5	10.0	+1 36	- 7.2		25	80	10.7		12.3	+0 31	- 4.8	
11	42	9.3	9.3	10.0	+1 48	+29.7		26	89	11.0		13.0	-0 22	+ 3.0	
12	47	9.5	9.4	10.3	-1 31	+18.3									
13	49	9.6		10.4	+0 17	- 5.9									
14	53	9.7	9.3	10.6	-1 2	+ 6.2									
15	58	9.9		10.9	-0 5	+ 5.2									

$$M. = 9.0 + 0.036 (G - 33.1).$$

8622

## W Ceti

 $23^{\text{h}} 54^{\text{m}} 41^{\text{s}}$  (1855.0) —  $15^{\circ} 29'.0$ Max. =  $2\,413\,565^{\text{d}}$  (6 Januarii 1896) +  $366^{\text{d}}$  E?

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1			$7^{\text{M}}.3$	$7^{\text{M}}.6$	$+3^{\text{m}}19^{\text{s}}$	$+15'.3$		19	73	$10^{\text{M}}.3$		$11^{\text{M}}.8$	$-1^{\text{m}}24^{\text{s}}$	$+27'.2$	
2	0	$8^{\text{M}}.3$	8.3	8.6	+0 41	-21.8		20	76	10.3		11.9	-0 30	+ 5.1	
3	4	8.4	8.5	8.8	-1 44	+11.4		21	79	10.4		12.0	+1 57	+23.9	
4	19	8.8	8.8	9.4	+3 37	-16.1		22	80	10.5		12.1	+0 27	- 8.1	
5	22	8.9	9.0	9.6	+3 14	-23.0		23	83	10.5		12.2	-1 13	-26.9	
6	24	8.9	9.0	9.7	+1 33	+35.6		24	83	10.5		12.2	+1 26	0.0	
7	27	9.0	9.0	9.8	+1 58	-26.0		25	85	10.6		12.3	+0 9	+ 7.2	
8	31	9.1	9.1	10.0	+2 8	-14.1		26	87	10.6		12.4	-0 7	-24.0	
9	31	9.1	9.0	10.0	-2 6	- 8.4		27	87	10.6		12.4	+1 24	+ 2.7	
10	32	9.2	9.1	10.0	-0 11	-18.0		28	91	10.7		12.6	-0 52	+11.9	
11	38	9.3	9.3	10.3	+2 33	-33.9		29	91	10.7		12.6	+1 42	+20.8	
12	43	9.5	9.6	10.5	+1 29	-11.8		30	92	10.8		12.6	-1 25	-21.2	
13	47	9.6	9.5	10.6	-0 3	-30.8		31	97	10.9		12.8	+0 22	+17.7	
14	48	9.6	9.4	10.7	+0 13	+30.5		32	98	10.9		12.9	+0 7	-10.2	
15	51	9.7	9.7	10.8	+1 51	-33.8		33	100	11.0		13.0	+0 17	+15.0	
16	56	9.8	9.5	11.0	+2 0	-30.0		34	104	11.1		13.2	-0 31	+ 6.6	
17	64	10.0		11.4	-1 41	+ 0.3		35	108	11.2		13.3	-1 2	-11.7	
18	69	10.2		11.6	-1 30	+14.1									

$$M = 9.0 + 0.027 (G - 26.2).$$

## Y Cassiopeiae

23<sup>h</sup> 55<sup>m</sup> 57<sup>s</sup> (1855.0) + 54° 52'.5Max. = 2 414 354<sup>d</sup> (5 Martii 1898) + 410<sup>d</sup> E.

Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae	Num.	Gradus	Magn.	BD.	HP.	$\Delta\alpha$	$\Delta\delta$	Notae
1			5 <sup>M</sup> .0	4 <sup>M</sup> .9	-4 <sup>m</sup> 18 <sup>s</sup>	+ 4'.5	$\sigma$ Cassiop. $\Sigma$ 3049 PD. 5 <sup>M</sup> .12 W+ ,, 7.05 G- P. 7.6 A* ,, 8.2 B	36	79	10 <sup>M</sup> .5		10 <sup>M</sup> .8	+0 <sup>m</sup> 26 <sup>s</sup>	- 8'.7	P. t
2	0	7 <sup>M</sup> .5	7.0	7.0	+2 16	+ 1.5		37	80	10.5		10.9	+1 44	+25.8	
3	11	7.9	7.9	7.7	+0 6	- 7.9		38	80	10.5		10.9	-1 0	+ 5.7	,, q ***
4	20	8.3	8.3	8.2	-0 46	- 6.3		39	83	10.6		11.0	-0 14	+ 6.6	,, p, dpl.
5	26	8.5	8.5	8.5	+0 9	-37.4		40	83	10.6		11.0	+0 13	+ 1.5	,, 10 <sup>M</sup> .6 c
6	29	8.6	9.0	8.7	+1 33	+22.7		41	84	10.6		11.0	-0 46	+ 9.3	
7	33	8.8	9.0	8.9	+1 23	-30.1		42	84	10.6		11.0	+0 3	+13.6	dpl.
8	35	8.8	9.0	9.0	-3 6	+ 0.9		43	85	10.7		11.1	-0 53	- 5.8	
9	38	8.9	9.0	9.1	-2 38	+ 2.5		44	86	10.7		11.2	-1 46	+ 8.9	
10	39	9.0	9.1	9.1	+0 45	+21.2	,, 8.3 $\beta$	45	86	10.7		11.2	+0 30	-13.8	
11	40	9.0	8.8	9.2	-2 58	-13.5		46	87	10.7		11.2	+1 5	-12.0	
12	41	9.0	9.3	9.2	-2 40	+12.7		47	89	10.8		11.3	-1 40	- 3.9	
13	42	9.1	8.9	9.3	+2 12	-24.8		48	90	10.9		11.3	-1 33	-13.8	
14	44	9.2	9.0	9.3	+2 30	-15.9		49	90	10.9		11.3	+0 22	+ 6.6	
15	45	9.2	9.1	9.4	-1 1	-15.9	,, 9.0 o	50	91	10.9		11.4	-0 54	+ 6.9	
16	50	9.4		9.6	+1 16	+23.9	**	51	93	11.0		11.5	+0 30	- 3.6	
17	51	9.4	9.5	9.6	-0 53	- 3.0	P. 9.7 l	52	94	11.0		11.5	-1 34	+ 6.0	
18	53	9.5		9.7	+1 19	+24.2	**	53	94	11.0		11.5	+0 54	-14.4	
19	54	9.5	9.5	9.8	-0 14	- 6.7	P. 10.0 s	54	94	11.0		11.5	+0 1	- 9.6	
20	56	9.6	9.5	9.9	-1 12	-14.1	,, p'	55	96	11.1		11.6	-1 21	- 3.6	
21	56	9.6	9.5	9.9	+0 54	-23.4		56	100	11.2		11.8	-1 11	+ 0.2	
22	58	9.7	9.5	9.9	-1 14	+14.8		57	101	11.3		11.9	-1 20	+ 2.7	
23	60	9.8	9.5	10.0	+0 49	+ 2.4	,, 9.9 m	58	101	11.3		11.9	-0 31	+12.0	dpl.
24	63	9.9	9.5	10.1	-1 50	+23.0	dpl.	59	104	11.4		12.1	+0 13	+ 9.1	****
25	67	10.0		10.3	-0 51	+ 5.8	P. o' ***	60	104	11.4		12.1	+0 1	+ 2.1	P. 11.3 d
26	70	10.1		10.4	+0 15	+ 8.4	,, n ****	61	108	11.5		12.3	+0 30	- 6.7	dpl.
27	72	10.2		10.5	-1 35	+ 8.1		62	108	11.5		12.3	-0 46	+ 9.0	
28	74	10.3		10.6	0 0	+ 0.7	,, 10.3 b	63	110	11.6		12.5	+1 13	0.0	
29	74	10.3	9.5	10.6	-0 41	+18.6		64	114	11.7		12.7	-0 51	+ 9.4	
30	75	10.3		10.6	+0 56	- 2.4	,, r						+0 3	+ 0.1	P. 12.0 f
31	76	10.3		10.7	+0 40	+11.9							-0 10	+ 1.1	,, 12.7 g
32	76	10.3		10.7	-2 40	+19.5							+0 6	+ 0.8	,, 12.7 e
33	77	10.4	9.5	10.7	-2 33	-10.2							-0 22	+ 1.9	,, 13.0 k
34	77	10.4		10.7	+1 35	+26.7							+0 7	- 1.7	,, 13.4 a
35	78	10.4		10.8	+0 56	+11.7							+0 6	- 1.2	,, 13.9 z, dpl. (sp.)

\* Parkhurst, Researches in Stell. Photom. 1906, p. 176 Tab. 110 (magnitudines et litterae).

\*\* (16 + 18) = BD. + 55° 3081, 9<sup>M</sup>.2\*\*\* (25 + 38) = BD. + 54° 3100, 9<sup>M</sup>.5\*\*\*\* (26 + 59) = BD. + 55° 3075, 9<sup>M</sup>.5

$$M = 8.5 + 0.037 (G - 26.2).$$